## UK Ag Equine Programs 2022 Periodic Program Review Self-Study

University of Kentucky College of Agriculture, Food and Environment



*Submitted by: James MacLeod, VMD, PhD, director of UK Ag Equine Programs Submitted to: Dean Nancy Cox, College of Agriculture, Food and Environment Date submitted: March 15, 2022* 



Ag Equine Programs College of Agriculture, Food and Environment

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Right Out of the Gate

**Periodic Program Review Videos** 

About UK Ag Equine Programs

Meet Our Students

Innovative Equine Research

Equine Extension and Outreach

University of Kentucky Agriculture and Equine Facilities: <u>UK College of Agriculture, Food and Environment Tour</u> <u>UK Maine Chance Farm Pirri Pavilion</u>

**Equine Programmatic Videos:** 

Meet Averly Jane, UK Bred Graded Stakes Winner

UK Ag Equine Programs, Importance of the Saddlebred

Equine Week of Service

It Starts with Us with past director Michael <u>Peterson, PhD</u>

> Dr. Rossano, Equine Behavior and Handling Class

Equine Research and Extension:

Maxwell H. Gluck Equine Research Center

Indoor Arena Facility Research

Racecourse Track Safety

Equine Pasture Evaluation Program

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2021 Equine Farm & Facilities Expo

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#### I. A SPECIAL NOTE ABOUT UK AG EQUINE PROGRAMS

#### INTRODUCTION TO UNIVERSITY OF KENTUCKY'S AG EQUINE PROGRAMS

Thank you for agreeing to serve on the Periodic Program Review committee for University of Kentucky's Ag Equine Programs. We fully embrace that honest and sincere feedback is a gift, and therefore greatly appreciate your time and effort. The purpose of this introduction is to overview the concepts and structure upon which Equine Programs has been built. These issues can be a source of confusion, especially in relationship to traditional academic departments.

Equine Programs is an interdepartmental, transdisciplinary academic unit within the College of Agriculture, Food and Environment. The mission is easy to understand: "Discover, share, and apply new knowledge on the health, performance, and management of horses, enhancing the signature status of Kentucky's equine industry."

However, a conceptual and logistical understanding of how we are applying the "interdepartmental and transdisciplinary academic unit" vision and what this means on an operational level can be more challenging. Importantly, all of the faculty that are affiliated with Equine Programs have their academic home within a regular academic department - not in Equine Programs. As such, they have a distribution of effort defined by their departmental faculty line, have grants and other initiatives administered by departmental staff, and are evaluated by their departmental chair. Equine Programs is not an academic department, and therefore no faculty members have their academic home here. By extension, the director of Equine Programs has no direct leverage to apply or mechanism by which to assign faculty tasks or responsibilities.

The goal of Equine Programs is to facilitate and support equine-related effort and productivity across the three primary missions assigned to land-grant universities by the Hatch Act of 1877 and the Smith-Lever Act of 1914: "...to teach, to conduct research, and to provide service to communities." The vision is to do this in collaboration with the academic departments, and wherever possible to identify and support interdepartmental and transdisciplinary synergies. Equine Programs should not be competing with academic departments in any way. We are not trying to control or direct, but to enable and promote equine-related academic productivity. Working together, collaborating across disciplines, "a rising tide lifts all boats," - this is the opportunity and what we are trying to achieve.

Equine Programs was formed in 2005, catalyzed by the major challenges associated with Mare Reproductive Loss Syndrome (MRLS) in the years 2001 and 2002. Figuring out the cause and pathological processes of MRLS, as well as management strategies to avoid the disease syndrome, is truly one of University of Kentucky's greatest equine success stories, but it was also an experience that unambiguously demonstrated the critical importance of a multidisciplinary approach to addressing a sudden and complex crisis.



Primary methods used by Equine Programs to reach our goal and support the mission is communication, transdisciplinary collaboration, strategic investment of financial resources, and cultivating a community that values equine science, equine agriculture, and the horses themselves. Importantly, our community welcomes not only faculty, staff, and students across academic disciplines and departments, but also the full diversity of equine industry stakeholders and horse enthusiasts represented regionally in central Kentucky, and extending to state, national, and international levels.

This self-study report is organized into core areas, reflecting the land-grant missions, the organizational logistics, and selected initiatives within Equine Programs. The largest section focuses on our interdepartmental undergraduate Equine Science and Management major, which averages 280-310 students and has the highest percentage of out-of-state students (~75%) across all degree programs at the University of Kentucky, not just within the College of Agriculture, Food and Environment. It is truly a nationally prominent program. A conscious attempt was made to focus on major concepts and summary data in each core area, with additional supporting material organized and made available as appendices.

A distinguishing characteristic of UK Ag Equine Programs relative to other universities and colleges is the breadth and scope of disciplines that we include under the umbrella of equine science and management. We believe this is an important strength and opportunity for advancing new knowledge and supporting academic efforts, but it also presents a challenge when constructing a self-study document for a multi-year program review.

Thank you again for your time, effort, and expertise. We are greatly looking forward to your thoughts and recommendations.

#### **II. UK AG EQUINE PROGRAMS OVERVIEW**

## GENERAL INFO, MISSION, VISION, GOALS, ICONOGRAPHY

UK Ag Equine Programs is an academic unit within the University of Kentucky College of Agriculture, Food and Environment that serves as the front door to equine work being done at the University of Kentucky, representing the breadth and depth of all things equine in the College of Agriculture, Food and Environment. It exemplifies the college's long-term commitment to serving the equine industry and horse enthusiasts regionally, nationally, and internationally. UK College of Agriculture, Food and Environment Land-Grant Values: The University of Kentucky College of Agriculture, Food and Environment was founded as, and remains a land-grant institution, committed to improving the quality of life for Kentuckians. Our research, teaching, and extension programs are part of a national system that maintains a statewide presence and links local, state, and global issues. Agriculture, food, and environmental systems are key components of Kentucky's economic future, and the college is playing a prominent role in those areas with its programs.

UK Ag Equine Programs, formerly the Equine Initiative, was launched in 2005 when the College of Agriculture, Food and Environment set out to radically change how it served Kentucky's signature equine industry and provide a suite of services appropriate for a land-grant university. In a nod acknowledging the success of those efforts and a continued commitment to the state's equine industry, the college adopted the name UK Ag Equine Programs in early 2012 to better position its equine programs for continued success.

The **mission** of the program is to discover, share, and apply new knowledge on the health, performance and management of horses, enhancing the signature status of Kentucky's equine industry.

**Tagline**: The horse is at the heart of everything we do.

**Logo**: updated and approved by UK College of Agriculture, Food and Environment and UK Public Relations in July 2016



Goals: Overall strategic objectives, as written in the **2015 UK Ag Equine Programs' strategic plan**. Many of these have been realized or are no longer relevent as the organization has evolved. (*appendix core area 1.a*)

- Enhanced Communications: Enhance and focus communications to increase positive brand awareness. Ultimately, the connection made by the public and industry groups is equine/education = University of Kentucky (UK)/ College of Agriculture, Food and Environment (CAFE) /Equine Programs (EP).
- 2. Research Excellence: Build a research base of excellence to support growth and development of equine sciences.
- 3. Equine Science and Management Program Performance: Establish measures for the Equine Science and Management (ESMA) program performance to assure a quality academic program that leads to professional careers reflective of ESMA students' interests.
- 4. Outreach and Community Engagement: Build creative, beneficial, and functional relations with partners in the equine industry.
- 5. Equine Programs' Infrastructure and Capacity: Strengthen organizational capacity and infrastructure of EP to fulfill its mission and vision.

#### RECOMMENDATIONS AND CHANGES FROM MOST RECENT PERIODIC REVIEW (2014)

UK Ag Equine Programs completed a program review in September 2014. This review focused primarily on the Equine Science and Management (ESMA) undergraduate degree program. An implementation plan was submitted in February 2015 and finalized in May 2015. Below are the recommendations and actions generated from that process, as they were written in 2015.

**Recommendations that were rejected were omitted from the report**. Throughout the document, the external review committee refers to the "ESM Program." At times, we believe they are referring specifically to ESMA, while at other times, we believe they intended to refer to the entire Equine Programs. We note those differences in the document. As for the recommendations, some recommendations have not yet been addressed, many are ongoing, and some have been completed as of the last subsequent update in 2019.

1. The current administrative position of the ESM Program within CAFE structure should be evaluated. Specifically, is the program positioned appropriately for continued and future success through its association with the experiment station versus the office of academic programs? (This recommendation refers to Equine Programs.)

Assessment Method: The focus of discussion by college administration on where to place Equine Programs emphasized that it is a multidisciplinary, interdepartmental program and covers all three land-grant mission areas - research, teaching, and extension/outreach. Although not a stand-alone unit, the consensus is that the program necessarily warrants college-level status.

Results: College administration, in conjunction with Equine Programs leadership and through the strategic planning process, determined that the most appropriate reporting structure of Equine Programs would be directly to the College Dean instead of one of the Associate Deans. This new structure was implemented in January 2017.

Analysis of results and reflection: The rapid and continued growth of Equine Programs, and the importance of involvement/productivity in all three land-grant mission areas make this new structure more logical.

Ongoing improvement actions: College administration and Equine Programs leadership have continued to assess the correct reporting structure for this program. It is clear that the new reporting structure is better suited for Equine Programs and moving forward this relationship is expected to remain in place.

2. The existing structure and alignment of the committees and councils within ESM should be streamlined and/or consolidated with defined

## roles for individuals. (This recommendation refers to the Equine Programs as a whole.)

Assessment Method: Equine Programs will work with college administration to determine the most effective organization of committees within Equine Programs.

Results: In 2015, and following consultation with then Associate Dean Larry Grabau, the decision was made to eliminate the ESMA Steering Committee and to create the ESMA Curriculum Committee, which is chaired by the Director of Undergraduate Studies. An ad-hoc committee reviewed the structure and reporting process within Equine Programs. Based on a vote of the EP Council (now called the Equine Programs Executive Committee) and review by the Dean, a new structure has been implemented. An executive committee was and four subcommittees were created: curriculum, research, extension, and communication/outreach. Each participating academic department can have at least one member on of each subcommittee.

Analysis of results and reflection: The four subcommittees are overseen by chairs who are responsible for scheduling meetings and associated deliberations/activities. The initial limitation placed on membership of the subcommittees was unnecessarily restrictive which led to the affiliates process.

Ongoing improvement actions: The affiliates process is available to each subcommittee but has been implemented to different degrees. Overall level of activity of the four subcommittees varies. Efforts to broaden subcommittee participation and activity are ongoing.

#### 3. The Equine Programs Organizational Chart is unduly complicated and convoluted. A simpler chart should be developed.

A revised organizational chart has been developed and implemented. (*See Focus Area* 1.) The chart was presented and adopted. Dean Cox and the Equine Advisory Board approved the organizational chart prior to the vote and will review and approve minor changes made in the voting process. The organizational chart includes Equine Programs in all the mission areas of the college.

4. An ESM program strategic plan should be developed with long-term goals and measurable benchmarks, emphasizing "managed growth" in the ESM program to protect the quality of the program and avoid outstripping resources. (This recommendation refers to the ESMA undergrad degree program.)

Assessment Method: A joint ESMA/AFS committee was appointed to begin reviewing this recommendation, which affects both majors. This committee is currently not active. To better recognize the interdisciplinary nature of the ESMA degree, consideration should be given to updating the strategic plan in collaboration with all participating academic departments.

Results: Recurring funding for two fulltime lecturer positions continues to help address immediate needs in several teaching and advising areas. The updated strategic plan will need to more fully embrace the multidisciplinary and interdepartmental nature of the program.

Analysis of results and reflection: The recommendation referred to the ESMA teaching program. Steps were initiated in 2016 to review the curriculum as a whole and a revised curriculum developed. Ongoing assessment and reflection continues.

Ongoing improvement actions: Improvement actions are ongoing and need to be addressed in light of the larger undergraduate enrollment.

# 5. New course(s) should be created that emphasize business/accounting education, as well as presentation/ communication skills and interactive skills.

Assessment Method: The ESMA teaching faculty began a curriculum mapping exercise that resulted in a comprehensive program change. This was informed by both internal and external (stakeholder) input. Educational parameters in business/accounting, communication and interactive areas were carefully considered including the introduction of new classes and some revisions to existing classes.

Results: EQM 305: Equine Industry Issues course (GCCR) was created and is writing and oral communications focused.

Analysis of results and reflection: The new curriculum embraces the interdisciplinary nature of the program and addresses specific weak-nesses noted from the 2017 Work Force Summit and identified by the advisory board.

Ongoing improvement actions: A revised curriculum was approved and implemented with the incoming classes starting in fall semester of 2019. Importantly, the ESMA program was selected on a university level to participate in the Essential Employability Qualities (EEQs) for graduates, and subsequently earned EEQ certification. This is a joint effort between the Kentucky Council on Postsecondary Education and The Quality Assurance Commons organization. All students are now required to take EQM 106: Intro to Equine Careers as well as the EQM 305: Equine Industry Issues (GCCR). In addition, EQM 490: ESMA Capstone has been revamped to increase the academic rigor and career preparation components our students needed.

6. A course in "alphabet organization" should be considered to provide insight into the horse industry. (The reference to "alphabet organization" refers to important high-profile industry organizations and commonly used industry acronyms.)

Assessment Method: Curriculum committee assessments.

Results: This potential new course has not yet been selected as a priority issue during the curriculum mapping reflections and resulting curricular changes. The potential benefits are still fully appreciated, but the ability to proceed is limited by resource constraints.

Analysis of results and reflection: The possibility of developing this class remains an option.

Ongoing improvement actions: On hold, pending a decision to move forward with developing this new class. 7. CAFE administration should allocate additional resources to the ESM program in the form of TAs and faculty lines in Animal and Food Sciences or Veterinary Science.

Assessment Method: A joint ESMA/AFS committee was appointed to review teaching-related needs in the ESMA degree program. After initial progress, the committee has not met and strategic decisions in other departments related to faculty positions are beyond the purview of the Equine Programs.

Results: Recurring funding was made available by the dean for two full-time lecturer positions. The academic home for the lecturer positions are in the Department of Animal and Food Sciences and they have unequivocally helped to address immediate shortages in teaching and advising capacity. Student teaching assistant (TA) positions have also been funded for support of EQM105 and several other classes.

Analysis of results and reflection: Expansion in the number of teaching faculty has had a significant positive impact on the ESMA program. Further increases in student enrollment combined with the growth of programmatic scope and substance continues to result in the teaching faculty being fully extended.

Ongoing improvement actions: Ongoing improvement actions will begin following analysis. Currently TA tuition credits for ESMA classes are all assigned to the AFS department.

## 9. To accommodate continued growth in the program, additional classroom and farm facilities will be necessary.

Assessment Method: A major financial gift has expanded the equine facilities at Maine Chance Farm used for teaching the ESMA classes. No expansion of teaching or research facilities beyond existing facilities is currently planned. Equine Programs has begun discussion regarding a plan for an interdisciplinary research and teaching facility that will address broader teaching and research needs. This facility will not be limited to use by the AFS faculty but will focus on interdisciplinary teaching and research.

Results: Expansion of the Pirri Equine Teaching Pavilion at the Maine Chance farm campus has been completed. Classroom seating for up to 75 students and bathroom facilities are now available.

Analysis of results and reflection: Infrastructure to support the large and likely still growing number of undergraduate students in the ESMA major remains a high priority issue.

Ongoing improvement actions: Review and assessment of priority needs is ongoing.

10. The ESM steering committee should review the appropriateness of ESM courses and make adjustments to minimize redundancy and increase the rigor of upper level classes.

Assessment Method: The ESMA teaching faculty began a curriculum mapping exercise in May 2017 These changes have been fully implemented and the comprehensive curriculum changes have been approved at college curriculum and university levels

Results: Completed.

Analysis of results and reflection: The curriculum mapping exercise has been completed and program changes went into effect with the Fall 2019 cohort of students.

Ongoing improvement actions: Review of the changes is ongoing.

#### 11. The ESM Director position should be a fulltime appointment as the program continues to expand, and the Co-Director position should have a more well-defined set of responsibilities, as well as an administrative stipend.

Assessment Method: The program recommended a full-time director in its strategic planning process. This recommendation parallels views expressed by the program's external advisory board. Additional positions or roles in the program are not clear and will depend on the results of the updated organizational structure.

Results: Dr. James MacLeod took over the role of director in October 2019 from Dr. Mick

Peterson who started January 2017. Peterson's appointment was the highest the program has seen in this role, at 70%. Due to ongoing research and teaching professional commitments, Dr. MacLeod's administrative percent effort was initially set at 50%.

Analysis of results and reflection: This progression has been a long time coming and has been addressed by the new commitment made by administration for a director.

Ongoing improvement actions: Assessment of optimal Equine Programs leadership relationships is ongoing.

12. The ESM faculty should develop a University Scholars Program in conjunction with the graduate programs in Veterinary Science, Animal and Food Sciences, and Plant and Soil Sciences.

Not yet started.

13. The ESM program should promote the tremendous equine reproduction opportunities available to undergraduates at the Gluck Center and for students with an interest in the science of horses, other well-known research programs in Veterinary Science, Animal and Food Sciences, and Plant and Soil Sciences.

Assessment Method: This recommendation should read "member departments" instead of "Veterinary Sciences, Animal and Food Sciences and Plant and Soil Sciences." The departments with which this program collaborates reach beyond VS, AFS, and PSS and also may change over time.

Results: It is important to promote the research opportunities to undergraduates in all CAFE departments, and work is ongoing in this area.

Analysis of results and reflection: Analysis and reflection are impossible at this time.

Ongoing improvement actions: Ongoing improvement actions will begin following analysis.

#### SELF-STUDY PROCESS

Organizing and planning for the selfstudy began in the summer of 2021 when the college's Office for Faculty Resources, Planning, and Assessment (OFRPA) met with the Director of Equine Programs and the review team chair to lay out the process. The Equine Programs Executive Committee (EPEC) recommended names of individuals to serve on the review team committee. After approval of the recommendations by Dean Nancy Cox, the review team was finalized by the OFRPA. Leadership for this self-study was provided by a Self-Study Working Group composed of Dr. James MacLeod, Director of Equine Programs, Ms. Holly Wiemers, Communications and Managing Director of Equine Programs, and Ms. Erin DesNoyers, Operations Coordinator of Equine Programs. Following guidelines provided by OFRPA, they developed an initial structure for the self-study and organized primary drafts. The process was collaborative and involved diverse input from the outset, with discussions taking place among faculty and staff in various committee meetings and small groups. Writing of the self-study was also collaborative, utilizing previous documents and reports generated within Equine Programs as starting points where appropriate. Input and editing engaged core individuals (listed alphabetically) in the following nine focus areas:

- 1. Overview: Dr. James MacLeod, Ms. Holly Wiemers
- 2. Degree and Certificate Programs: Ms. Savannah Robin, Dr. Kristine Urschel, Ms. Kristen Wilson
- Faculty and Staff: Ms. Erin DesNoyers, Dr. James MacLeod, Dr. Kristine Urschel, Ms. Holly Wiemers
- 4. Research: Dr. James MacLeod, Ms. Lesley Oliver
- 5. Service Extension and Outreach: Dr. Fernanda Camargo, Dr. Robert Coleman, Ms. Krista Lea, Dr. James MacLeod, Dr. Ray Smith
- 6. Diversity Equity and Inclusion: Ms. Erin DesNoyers, Dr. Camie Heleski, Ms. Savannah Robin, Ms. Holly Wiemers

- 7. Administration and Governance: Ms. Erin DesNoyers, Dr. James MacLeod, Ms. Holly Wiemers
- 8. Budget and Facilities: Ms. Erin DesNoyers and Dr. James MacLeod
- 9. Changes and Reflection: Dr. James MacLeod, Dr. Jill Stowe, Ms. Holly Wiemers

#### **III. DEGREE PROGRAM**

## EQUINE SCIENCE AND MANAGEMENT DEGREE PROGRAM



A diverse population of students from across the United States and Kentucky enroll at the University of Kentucky in the Equine Science and Management undergraduate degree program to live and learn in the heart of horse country. From a customizable undergraduate equine degree with targeted graduate opportunities and career-building enrichment activities,

to opportunities for sport and recreation through one of nearly a dozen equine clubs and teams, there is no better place to pursue a passion for the horse in a meaningful way.

Equine Science and Management involves the study and application of science and business concepts to the horse industry. Additional course work supports learning in areas that aid in breeding and raising horses and marketing of the industry. Students come from varied equine backgrounds but have a common interest in the horse. Regardless of which breed of horse or activity focus students have, Equine Science and Management students will have the opportunity to combine their interest in the horse with a desire to become active participants in the horse industry.

UK offers one of only three equine degree programs from a land-grant university across the country. To earn the Bachelor of Science in Equine Science and Management, students must complete a minimum of 120 credit hours While all students take a core set of major required courses, approximately one-third of the degree program is customizable to students to learn new knowledge and skills while preparing for their future career endeavors. Students must select one emphasis area and complete 12 credit hours from a specific emphasis area and then nine additional credits from any other emphasis area for a total of 21 credit hours. Emphasis areas include: Equine Science, Equine Management and Industry, and Communications and Leadership. Students may also pursue a minor or select additional emphasis area courses in the specialty support and elective areas to round out their coursework. For a complete list of courses, see the course major sheet (appendix core area 2.a).

#### DEMAND AND ENROLLMENT

On average, the Equine Science and Management degree program has approximately 300 students enrolled. Student enrollment grew

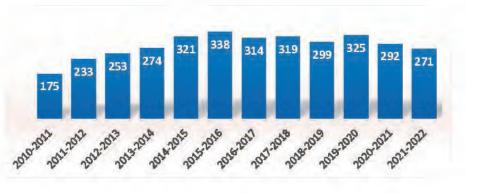


Figure 1: Equine Science and Management Enrollment from 2010-2022.

steadily in the initial five years of the program and has stayed fairly consistent the past eight years. Drawing students from all over the country, we average about 75% students from out of state, which is the largest percentage of any major on UK's campus. In addition, on average, we have approximately 90% female and 10% male demographics.

Since the degree program's inception and the last Periodic Program Review, additional recruitment efforts have been put into place when we began to see a plateau in incoming student numbers. Equine Programs staff have worked in conjunction with the College of Agriculture, Food and Environment Center for Student Success to coordinate various events and opportunities to showcase the program's curriculum and opportunities to perspective students and their families. Several of these events are highlighted below.

#### Experience Equine:

This is a recruitment event targeting high school seniors that showcases not only the University of Kentucky and our equine program, but also the local equine industry. It has been held in-person as full- and half-day events as well as virtually, including the following components:

- Information sessions covering admissions and scholarships, the Equine Science and Management undergraduate degree program, and pre-vet course of study opportunities
- Opportunities to learn about equine-related clubs and teams
- A networking luncheon where attendees interact with alumni representing the diverse career areas in the industry
- On-campus tours
  - Gluck Equine Research Center laboratories
  - College of Agriculture, Food and Environment campus
- Off-campus tours
  - UK's Maine Chance Farm, showcasing the teaching and research facilities

- Local horse farms

- Veterinary clinics
- Student and Alumni Question and Answer panel

Experience Equine was created in 2018. Since then, in-person events have been held in the spring and fall of 2019 and fall of 2021. Virtual events were hosted in October 2020 and April 2021 to offer this recruitment opportunity amidst a global pandemic. The virtual events showcased materials developed by current students and the Equine Programs team highlighting our curriculum, facilities, and the overall student experiences listed below.

- Sessions as part of these virtual events were hosted via Zoom to include overview sessions and separate student and parent question and answer sessions.
- Social media was utilized to post videos and other interactive content for participants to view throughout the event.
- The Wildcat Wrangler student ambassadors created several of their own social media campaigns in connection to each of the planned activities, including virtual tours of campus, the farm, and student experiences.
- Content highlighting student internships and experiences was generated to showcase the opportunities students have studying within the program.

#### Wildcat Wrangler Student Ambassador Team:

The Wildcat Wrangler student ambassador program was created in the spring of 2019





as a way to include equine students in leadership roles within the ESMA major and to assist at industry and recruitment events. This team focuses on recruitment efforts and programming with current student events and community building efforts for Equine Science and Management students. Students must apply and go through an interview process to be offered the opportunity to serve in this leadership role. Once part of the team, students are enrolled in a 1 credit class in both the fall and spring semesters. Some of the recruitment focused efforts of this student team include:

- As part of the course requirements, this team of students has led efforts to develop and promote social media campaigns and virtual events to increase the diversity and scope of the Equine Science and Management audience. In fact, they developed many of the online resources shared and led Zoom sessions during the virtual Experience Equine sessions.
- Team members also have the opportunity to attend equine industry events such as the Land Rover Kentucky Three Day Event, Retired Racehorse Project Thoroughbred Makeover and EQUITANA USA, as well as other recruitment events. They represent Equine Programs and talk to prospective students and their families about their student experience and the program curriculum and opportunities.

Additional strategies have been implemented to effectively communicate our program to prospective students in the United States and globally.

- The UK Ag Equine Programs' website was overhauled and revised in 2020 with a new design and increased interaction for the user.
   Fresh information was added for students (current and prospective), alumni, extension, research, publications, and events.
- New resources and graphic content has been created to highlight program initiatives for a more comprehensive packet of information distributed to prospective families during in-person and virtual visits.
- Marketing efforts directly targeted to individuals who reside in states that honor the Academic Common Market for in-state tuition opportunities have been employed in conjunction with the CAFE Center for Student Success.

## <u>Graduate Career Placement and Essential Employability Qualities (EEQ) Certification:</u>

The job market for equine students has become very diverse. With the three emphasis areas the degree program offers and the multi-disciplinary approach to the program, students are prepared for a wide variety of careers. This has been reflected in the type of positions our 550 graduates are obtaining post-graduation, as well as the variety of internship placements. To date, 88% of our graduates have careers within the equine and animal industries. Growing areas include non-profit management, outreach and education (equine assisted services), and professional services (product sales, equine sales, photography, marketing, client relations, and communications). The diverse areas of study for professional and graduate level programs is also an indicator of the growing job market and opportunities for our graduates. Tracking the success of our alumni has been very important to the program to help us identify the trends in employment and job placement of our graduates. To date, we have data on 96% of our graduates and highlighted in pie chart below are the job categories reflective of the positions secured by our alumni. Approximately 27% of our graduates

will also pursue additional educational opportunities after graduating, as highlighted in Figures 2 and 3.

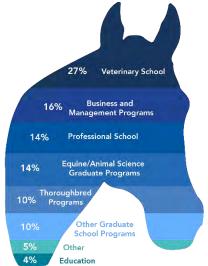


Figure 2: Equine Science and Management Alumni Graduate Program Distribution This figure represents approximate 27% of graduates that pursue additional education from various programs and fields.

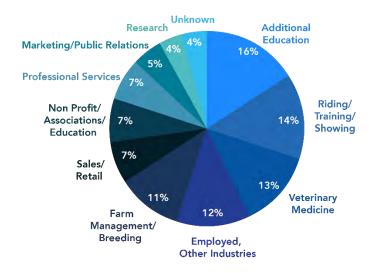


Figure 3: Equine Science and Management Alumni Career Distribution. This figure shows the diversity in job placement with approximately 96% of graduates working in an equine industry career field.

Additionally, in April 2020, the Equine Science and Management program received certi-

fication as an Essential Employability Qualities (EEQ) certified program through a partnership with the Quality Assurance Commons and the Kentucky Council for Post-Secondary Education. This certification solidified that in addition to equine knowledge and skills, the ESMA undergraduate program has a focused effort on preparing graduates for the workforce by increasing efforts on teaching employability skills throughout the undergraduate experience. These employability skills identified by the EEQ program include communication, principled and ethical decision making, critical thinking, life-long learning, problem solving, professionalism, teamwork, and adaptability. As part of this process, new evaluation tools were created and the EEQ skills have been directly linked to the student learning outcomes and our overall assessment plan within the degree program. There are a variety of ways these are integrated as seen in the overview of student learning outcomes (appendix core area 2.b).

To read more about the Essential Employability Qualities Certification and the way it can help prepare our graduates for the workforce, see materials here: (*appendix core area 2.c.d.e.f*).



#### COMPOSITION OF STUDENT ENROLLMENT AND RECENT GRADUATES

#### Enrollment and Diversity:

The Equine Science and Management undergraduate program has a very diverse population of students. The diversity of our students not only stems from their ethnicity and/or origin of location; our student also come in with horse skills and knowledge and academic preparedness across the spectrum. Below are some graphic illustrations highlighting our current student population demographics, including ethnicity, out-of-state population data, as well as first generation numbers as compared to the College of Agriculture, Food and Environment and University of Kentucky.

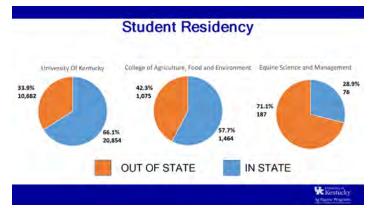


Figure 4: Student Residency – Displaying the breakdown of students coming to study at the University of Kentucky from in-state residences versus out-of-state residences. The Equine Science and Management program consists of students who majority come from out of state residences compared to the University and College of Agriculture, Food and Environment.

First Generation College Students

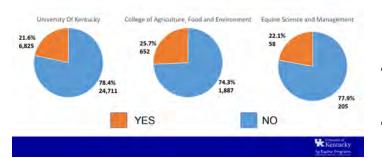


Figure 5: First Generation College Students – This represents the percentage of first generation college students in the Equine Science and Management program comparatively to the University and College of Agriculture, Food and Environment.

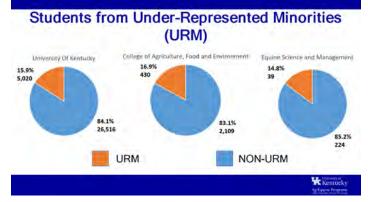


Figure 6: Students from Under-Represented Minorities (URM) – This figure shows the percentages of URM students in the Equine Science and Management degree program and how the program compares to the College of Agriculture, Food and Environment and University.

The program has developed a new Diversity, Equity and Inclusion subcommittee in order to address the needs of our diverse student population. This committee is still in the infancy of development but has begun to meet to identify potential needs from a student perspective. To address some of these preliminary needs, the following things have begun and/or are being implemented:

- Student and Alumni Diversity, Equity and Inclusion Subcommittee has been formed.
- Developed partnerships with the College of Agriculture, Food and Environment Office of Diversity to assist with programmatic, teaching, recruitment, and professional development efforts.
- Diversity, Equity and Inclusion conscientious events for current students have included collaborations through the Week of Service and Spring into Service events led by the Wildcat Wrangler student ambassador team with local organizations like the African Cemetery No. 2, which honors African American jockeys who have made incredible contributions to the equine industry.
- Partnership has been formed with the Ed Brown Society to recruit and support underrepresented minorities.
- Identification and selection of guest speakers for Equine Science and Management courses who are an underrepresented minority.
- Presentations and panels on Diversity, Equity and Inclusion topics within specific Equine Science and Management courses.

## ACADEMIC PREPAREDNESS OF INCOMING STUDENTS:

Since our degree program requires math and science coursework, students are most successful in the program with a strong math background. The academic preparedness of our students has been a challenge at times. Luckily, main campus has focused efforts on the academic preparedness program, in which students with lower test scores in math, reading, and English have additional coursework and pathways at the beginning of their program to help them be successful in the future. This has helped the small population of students coming in, but definitely adds to the resources and time needed to aid these students to be successful.

The table below provides the ACT and unweighted high school GPA for incoming students in the 2015-2016 (time of the last programmatic review), 2019-2020 (last incoming class pre-COVID) and 2021-2022 (most recent available data) classes. Students in the 2021-2022 incoming class are part of a cohort where ACT scores were optional and their final year and a half of high school were compromised by the ongoing pandemic; therefore, it was not appropriate to make comparisons between the incoming classes of 2015-2016 and 2021-2022, so we have focused our comparisons on the 2015-2016 and 2019-2020 incoming classes. For both the ACT scores and the unweighted high school GPA metrics, ESMA student scores have dropped since the previous review.

Furthermore, the lower quartile boundary for ACT scores for ESMA students dropped from 23 in 2015-2016 to 21 in 2019-2020, indicating that our least prepared students, based on this metric, are coming into university even less prepared. In comparison to the overall incoming student population at the University of Kentucky, students in the ESMA program have had consistently lower ACT scores and unweighted high school GPA scores, and the gap between the ESMA and the overall University of Kentucky students has increased between the 2015-2016 and 2019-2020 cohorts. Collectively this data indicates that the ESMA students may require additional academic support to ensure their academic success and to compensate for the fact that there has been a decline in these preparedness metrics, relative to both the general University of Kentucky incoming student population and the ESMA cohort from the time of our previous programmatic review.

#### CURRICULUM DEVELOPMENT

#### Equine Science and Management Curriculum, Prerequisites and Major Requirements:

Students within the undergraduate program must complete a minimum of 120 credit hours to graduate. In addition, they must have a 2.0 grade point average or higher and 45 course credit hours of their program must come from 300 level or above coursework. The 120 credit hour requirement includes courses in the follow-

ing categories: 1) general education (referred to as UK Core), 2) pre major requirements (including two lower level biology classes, two lower level chemistry classes, microeconomics, and a minimum of college algebra), 3) major requirement courses (listed in the table below), 4) specialty support and 4) electives. Many of these cat-

1	2015-2016	2019-2020	2021-2022
Mean ACT scores	the state	41	
ESMA students	25.3 (70% submitting)	23.8 (68% submitting)	24.5 (33% submitting)
CAFE students	24.9 (87% submitting)	24.4 (85% submitting)	24.0 (58% submitting)
UK students	25.5 (92% submitting)	25.3 (88% submitting)	25.9 (70% submitting)
Mean Unweighted High School GPA			1
ESMA students	3.40	3,34	3.52
CAFE students	3.49	3.46	3.54
UK students	3.46	3.52	3.60

Table 1: Preparedness metrics of incoming ESMA students in comparison to other CAFÉ and UK incoming students.

egories allow flexibility for the student to select course work to support their intended career pathway, including choosing from many options to take course work towards a minor. However, major requirement courses must be taken by every student in the entirety to ensure that all of our students are graduating with a similar set of knowledge and skills.

In addition to the major core requirements, Equine Science and Management students select an emphasis area that correlates to their intended career path within the equine industry. The emphasis areas include Equine Science, Equine Management and Industry, and Communications and Leadership. Students will complete 12 credits in one emphasis area and at least 9 credits from any of the emphasis areas, for a total of 21 credit hours. For a complete list of emphasis area courses, as well as all other requirements, please see the Equine Science and Management major sheet (appendix core area 2.a).

Course	Prerequisites
EQM 101 Introduction to the Horse and the Horse Industry	None
EQM 105 Equine Behavior and Handling	"C" or better in EQM 101
EQM 106 Introduction to Careers in the Equine Industry	None
ASC 101 Domestic Animal Biology	None
ASC 310 Equine Anatomy	ASC 101
ASC 320 Equine Management	ASC 101
EQM 305 Equine Industry Issues (Graduation Communications and Communications (GCCR) course)	Composition and Communications I and II; "C" or better in EQM 101
EQM 351 Equine Health and Diseases	ASC 320
AEC 302 Agricultural Management Principles	"C" or better in ECO 201
EQM 396 Equine Study Abroad	Dependent on trip requirements
EQM 399 Equine Science and Management Internship	EQM 101, EQM 105, EQM 106, EQM 305, ASC 101, ASC 310, ASC 320, Junior standing
EQM 490 Capstone in Equine Science and Management	Senior standing

Table 2: Major requirements courses in the ESMA major.

Courses in the 100-200 range are designed to have minimal prerequisite courses, which could be no requirements at all or having had received a "C of higher" in EQM 101: Introduction to the horse and the horse industry. Courses in the 300-400 range generally require one or more prerequisite courses and/or or are restricted to students within a specific class standing or within the equine major.

#### <u>Prerequisite, Course Sequencing and Course</u> <u>Availability:</u>

Currently there are no consistent challenges to on-time graduation. Since the last Periodic Program Review, Equine Programs completed a comprehensive curriculum mapping process where potential bottlenecks were identified in student progression. As part of this process, a new four-year plan (appendix core area 2.g) was developed. Students are presented with a four-year plan template as part of the advising process, which shows the course and pre-requisite sequencing. This tool is always available in the myUK Graduation Planning and Scheduling (GPS) system. Additionally, freshmen have an opportunity to create a personalized four-year plan second semester of Freshman year. This plan is then used and tweaked, as needed, each semester during advising sessions.

To address challenges like bottlenecking that were identified, additional course sections have been added. For example, some major requirement courses are now offered in both Fall and Spring to meet student needs. The table below highlights the changes in offerings of major requirement courses based on the feedback from the curriculum mapping process.

#### Equine Science and Management Curriculum Review Process:

It is very important as a program that we keep up with industry needs and potential job opportunities for graduates. It is our job to ensure students

are prepared to enter the workforce successfully equipped with the knowledge and skills needed to be gainfully employed. As a program, we must also adjust student learning outcomes and assessment efforts to provide meaningful data to aid in decision making moving forward. Since the last periodic program review, the undergraduate program's curriculum has been reviewed in several ways and data has been used to make

Major requirement course	Offerings in 2015/16	Offerings in 2021/22
EQM 101	Fall	Fall, Spring
EQM 105	Spring (11 sections)	Spring (10 sections)
EQM 106	Spring	Fall, Spring
ASC 101	Fall (12 sections)	Fall (7 sections), Spring (5 sections)
ASC 310	Fall (1 section), Spring (1 section)	Fall (2 sections), Spring (2 sections)
ASC 320	Fall (2 sections)	Fall (4 sections)
EQM 305 (GCCR course)	N/A	Fall (2 sections), Spring (2 sections)
EQM 351	Spring	Fall, Spring
AEC 302	Fall (3 sections), Spring (4 sections)	Fall (4 sections), Spring (4 sections)
EQM 396	N/A (course did not exist)	N/A (due to COVID restrictions)
EQM 399	Fall, Spring, Summer	Fall, Spring, Summer
EQM 490	Fall (2 sections), Spring (2 sections)	Fall, Spring

curricular changes. In Spring 2017, the skills and knowledge within the major requirement courses were inventoried. From there, faculty and staff, alumni, and industry stakeholders were surveyed and asked their opinion about to what extent (introduced, reinforced, mastered) each of the knowledge/skill items should be learned by our equine students. This was the start of the curriculum mapping process which involved many layers. The process, including outcomes, has been outlined in (appendix core area 2.h)

During the academic year, the Equine Science and Management Curriculum Committee meets monthly to review new courses, course changes, and to discuss other programmatic issues. The committee strives to conduct at least one half-day retreat each year to provide a means for all equine faculty and staff to discuss the curriculum and its direction for success. In addition, curriculum meeting highlights are sent after each meeting to all equine teaching faculty.

Composition of Curriculum Committee:

- Director of Undergraduate Studies Co-chair
- Academic Coordinator Co-chair
- Internship Coordinator

lable 3: Offerings of major requirement courses.

- Teaching faculty and staff from the Department of Animal and Food Sciences (three representatives serving for three-year terms)
- Additional contributing academic department may select one faculty member or teaching staff to represent their department for a three-year term.

- Currently this committee includes one representative from Agricultural Economics and Veterinary Sciences

#### High-Impact Practices:

UK Ag Equine Programs has implemented several strategies and practices into the Equine Science and Management curriculum to prepare students with opportunities to apply their learned equine knowledge and skills to real-world experiences, engage in leadership opportunities, and hone their professional and employability skills. These initiatives include:

- All students must complete either a 150hour internship (EQM 399) or a faculty-led equine study abroad trip (EQM 396) experience.
- Undergraduate research opportunities have

been developed and made available to students, which can be used for student experiential learning and to participate within the EQM 399 internship course.

- A new course, EQM 395: Independent Study in Equine Science and Management, was created in 2021 for students to work oneon-one with faculty members in identifying industry issues/topics to research further and expand their knowledge and skill base.
- A student-driven peer mentoring program has been developed for the EQM 101 course affording upperclassmen the opportunity to guide their peers and establish community for new students within their first semester in the program.
- Wildcat Wranglers student ambassador program was implemented with a service-learning component.

- This program allows for students to build leadership skills while working with their peers to create meaningful events and programs to benefit current Equine Science and Management students and recruitment efforts for future students.

• A complete overhaul of the internship program was conducted to reflect a 300-level, 3-credit graded course.

- New initiatives include an internship poster showcase and awards reception at the culmination of the semester for students to present internship experiences, benchmark evaluations for students and employers, integrated assignments, and professional growth plans as a component to the internship course.

• Development and enhancement of career development practices as a component of the program.

- Utilizing a curricular framework for career and employability skill integration and development

- Activities, assignments, and lessons have been integrated into the student lifecycle and are sequencing well. These are integrated along with the high-level discipline-specific content area concepts and skills. To see the ESMA career and employability skill curricular framework see (appendix core area 2.i).

• The EEQ certification in April 2020 helped to prioritize the integration of essential employability skills into the curriculum and assessment efforts. This integration can be found within all four years of the undergraduate student experience.

#### <u>Comparison of Other Equine Degree Programs:</u>

Being one of only three standalone equine degree programs offered by land-grant universities across the U.S., UK's Equine Science and Management undergraduate program is unique. Unlike equine programs often offered through Animal Science majors, our students start taking equine course work from their first semester and have a large variety of equine-related courses to continue throughout their undergraduate experience. Furthermore, our efforts towards preparing students for a career in the industry, not only through internship experiences, but also our location submerged within a diverse and rich equine industry, makes UK the place to live and learn about horses.



#### Review of standalone equine degree programs at other land grant universities or the equivalent:

Colorado State University Equine Sciences

ProgramWebsite: <u>https://catalog.colostate.edu/general-catalog/colleges/agricultural-sciences/animal-sciences/equine-science-major/#requirementstext</u>

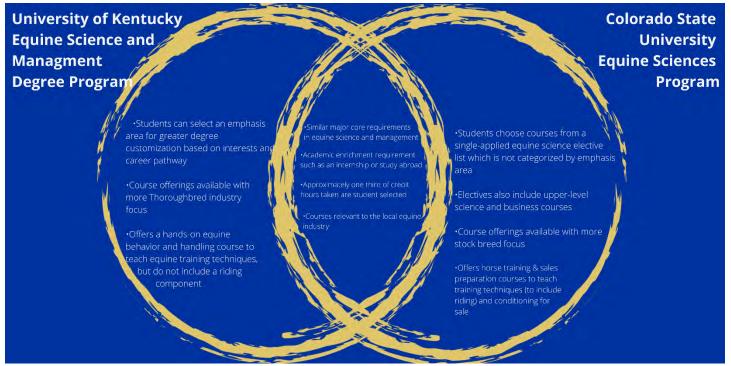


Figure 7: Comparison between the University of Kentucky and Colorado State University equine-related undergraduate programs.

University of Guelph Equine Studies

Program Website: <u>https://calendar.uoguelph.ca/undergraduate-calendar/programs-majors-mi-nors/equine-management-major-eqm/#requirementstext</u>

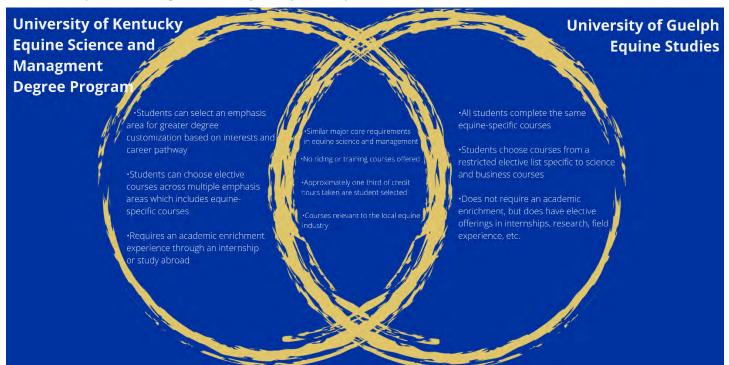


Figure 8: Comparison between the University of Kentucky and the University of Guelph equine-related undergraduate programs.

#### Other similar program(s) to review:

University of Arizona - Bachelor of Science in Animal Sciences with Equine Emphasis or Racetrack Industry Emphasis

- Program Website (Equine Emphasis): <u>https://www.arizona.edu/degree-search/majors/ani-mal-sciences-equine-emphasis</u>
- Program Website (Racetrack Industry Emphasis): https://www.arizona.edu/degree-search/ majors/animal-sciences-race-track-industry-emphasis

#### <u>Changes in the discipline requiring curriculum</u> <u>revision:</u>

We continue to look for opportunities to expand the emphasis area course offerings, particularly through seeking part-time instructors who offer expertise in areas we do not currently have. For example, in the past five years, we have offered and piloted new courses through our EQM 300: Topics in ESMA course to include courses in Thoroughbred investments, global perspective of the sport horse industry, survey of equine assisted therapies, and leadership-focused courses for students to serve as student ambassadors and peer mentors.

In recent years, the equine industry has seen a decrease in the number of on-farm workers. As a result, there has been additional pressure on the program to send students directly into on-farm positions, both as students and graduates. While this has provided opportunities for employment, many students are finding alternative ways to enter the equine industry through off-farm employment. Students and alumni are increasingly seeking career paths in equine support industries such as equine assisted services, equine product sales, marketing, communications, non-profit management, and education. The job market in these areas matches the student interests, therefore offering additional coursework for students in these areas has been a priority. While the program cannot offer every course that could be helpful in these career

fields, resources have been created that highlight applicable specialty support coursework, minors, undergraduate certificate programs, and double majors that may be helpful in preparing students for these career fields.

## STUDENT SUCCESS MEASURES AND OUTCOMES

<u>Student Retention and Graduation Rates Compared to Other University of Kentucky Programs:</u>

The data below outlines student retention rates

Entry cohort	Cohort size	Retained first spring (%)	Retained second fall (%)	Retained third fall (%)	Retained fourth fall (%)	Graduation in 4 years (%)	Graduation in 6 years (%)
Fall 2016	80	92.5	82.5	71.3	62,5	48.8	60.0
Fall 2017	73	97.3	82.2	76.7	67.1	63.0	
Fall 2018	62	93.5	87.1	77.4	66.1		
Fall 2019	91	97.8	90.1	78.0		-	
Fall 2020	58	94.8	93.1				
Fall 2021	72	100					

Table 4: Retention of Equine Science and Management students.

Entry cohort	Cohort size	Retained first spring (%)	Retained second fall (%)	Retained third fall (%)	Retained fourth fall (%)	Graduation in 4 years (%)	Graduation in 5 years (%)
Fall 2016	439	93.5	84.7	73.8	67,3	55.8	66.3
Fall 2017	507	93.7	83.6	73.2	66.9	55.0	
Fall 2018	458	93.3	84.4	73.9	63.5		
Fall 2019	516	92.6	85.3	74.9			
Fall 2020	462	92.0	84.3				
Fall 2021	418	92.8					

Table 5: Retention of College of Agriculture, Food and Environment students.

Entry cohort	Cohort size	Retained first spring (%)	Retained second fall (%)	Retained third fall (%)	Retained fourth fall (%)	Graduation in 4 years (%)	Graduation in 5 years (%)
Fall 2016	5002	92.7	83.3	74.6	69.0	51.8	65.7
Fall 2017	4719	93.3	84.5	75.5	69.8	53.9	
Fall 2018	4941	93.6	85.0	77.8	70.5		
Fall 2019	5264	93,4	85.9	77.4			
Fall 2020	4784	93.4	85.7			ii	
Fall 2021	4588	93.4					

Table 6: Retention of University of Kentucky students.

Cohort size	Retained first spring (%)	Retained second fall (%)	Retained third fall (%)	Retained fourth fall (%)	Graduation in 4 years (%)	Graduation in 5 years (%)
92	91.3	84.8	67.4	63.0	50,0	62.0
101	97.0	81.2	67.3	59.4	49.5	
93	90.4	75.5	68.1	58.5		·
98	92.9	88.8	74.5			
87	87.4	77.0				
66	89.4		-			
	size 92 101 93 98 87	size         first spring (%)           92         91.3           101         97.0           93         90.4           98         92.9           87         87.4	size         first spring (%)         second fall (%)           92         91.3         84.8           101         97.0         81.2           93         90.4         75.5           98         92.9         88.8           87         87.4         77.0	size         first spring (%)         second fall (%)         third fall (%)           92         91.3         84.8         67.4           101         97.0         81.2         67.3           93         90.4         75.5         68.1           98         92.9         88.8         74.5           87         87.4         77.0	size         first spring (%)         second fall (%)         third fall (%)         fourth fall (%)           92         91.3         84.8         67.4         63.0           101         97.0         81.2         67.3         59.4           93         90.4         75.5         68.1         58.5           98         92.9         88.8         74.5           87         87.4         77.0         1	size         first spring (%)         second fall (%)         third fall (%)         fourth fall (%)         in 4 years (%)           92         91.3         84.8         67.4         63.0         50.0           101         97.0         81.2         67.3         59.4         49.5           93         90.4         75.5         68.1         58.5         98           98         92.9         88.8         74.5         68.1         58.5           87         87.4         77.0         67.3         67.4         67.3

Entry cohort	Cohort size	Retained first spring (%)	Retained second fall (%)	Retained third fall (%)	Retained fourth fall (%)	Graduation in 4 years (%)	Graduation in 6 years (%)
Fall 2016	26	100	96.2	92.3	69.2	69.2	76.9
Fall 2017	26	92.3	80.8	80.8	76.9	61.5	
Fall 2018	22	90.9	86.4	77.3	63.6		
Fall 2019	22	100	90.9	86.4		1	
Fall 2020	20	95.0	80.0				
Fall 2021	14	80.0					

Table 8: Retention of Agricultural Economics students.

#### within the University of Kentucky:

#### <u>Job/Graduate Program Placement Rates and</u> <u>Data:</u>

UK Ag Equine Programs maintains an excel file tracking the 550 total alumni of the Equine Science and Management major. Data collected includes the following:

- Name
- Address
- Email address
- Phone number
- Job title
- Organization
- Additional education (institution and program)
- Salary category was recently added to track this data as well
- Previous job title/organization(s) worked for

As new job opportunities are acquired, data is collected regularly using the following mechanisms and updates are made to the excel workbook:

• Annual alumni update survey sent to graduates via email and posted on social media

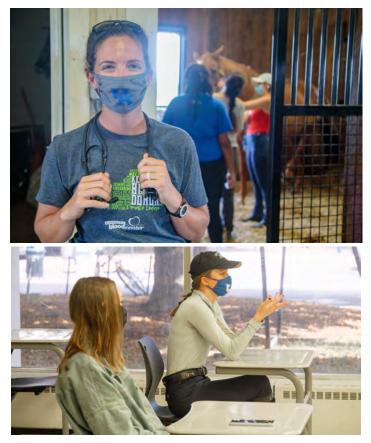
- Updates sent by individual alumni when a career change occurs
- Updates made by alumni on various social media platforms including Facebook and LinkedIn

As of fall 2021, we have data on 96% of our alumni

Graphics have been created about our graduates in the following areas (*appendix core area 2.j*)

- Career categories
- Location of employment, including where they started from to where they currently work
- Additional education

Graduate exit surveys have been conducted in the past but stopped within Equine Programs once main campus took over those efforts several years ago. Very little meaningful data has been acquired from the centralized effort; therefore, a new exit survey and interview formats (to acquire student voice) are being developed to pilot in Spring 2022 as a means of collecting stu-





dent preparation data relating to their career and employability skill preparation.

#### **Evaluation of Program Success:**

- The Equine Programs Advisory Board underwent a structural change to allow for more diverse employer and academic curriculum committee member representation to obtain a broader scope.
- The Academic Subcommittee under the Equine Programs Advisory Board and the Equine Science and Management Curriculum Committee was restructured to have members represent both groups to increase flow of information. This change opens the door for the curriculum committee to make specific "needs" requests for curriculum changes to the Equine Programs Advisory Board and Academic Subcommittee.
- Throughout the past year we have also increased our industry partnership and outreach programs. We are now working directly

with the following organizations to help provide mentorship to Equine Science and Management students:

- Kentucky Thoroughbred Farm Managers Club- mentorship program specific to students entering the Thoroughbred industry
  - Ed Brown Society specific outreach and mentorship relationships offered to UK ESMA students

- Spy Coast Farm - Lunch & Learn Program recruiting and student attendance

The Wildcat Wranglers student ambassador team launched and has expanded their outreach and programming efforts for current and future students. Most notably, they coordinated the UK Equine Week of Service events in 2020 and 2021, partnering with several different industry organizations in which students, faculty, and staff, and alumni volunteered more than 1,100 hours of service. This experience opened the opportunities for future employment, internship, and evaluator information. To view more about this event and the partnerships created, please click <u>here.</u>

- Internship Host Evaluation process continues to be used to evaluate the intern and the internship host site and we continue to receive high marks each time data is collected.
- Tuesday Tidbits e-newsletter was created to communicate with students weekly. Managed by the Academic Coordinator and Internship Coordinator, this weekly communication piece is sent every Tuesday and includes information about programmatic updates/events, job and internship opportunities, scholarship opportunities, as well as shout outs to celebrate the successes of our students.
- Equine Student Hub was created via a Share Point site as a one stop location for students to find programmatic information. This password protected site is only open to our students and is updated often and linked to from Tuesday Tidbits for students to access information.
- The Graduate Gallop e-newsletter was created to communicate with alumni monthly about programmatic, philanthropic, and curricular activities. This publication highlights job openings, spotlights alumni in their careers, and gives professional tips and tricks for the industry. This was developed in collaboration with Academic Coordinator and an Equine Science and Management student through an independent study project as well as the Equine Alumni Affiliate Network (EQAAN) Board of Directors. This is now managed by the EQAAN Board in collaboration with UK Ag Equine Programs.
- EQAAN Board of Directors has created a committee structure dedicated to collaborating with UK Ag Equine Programs on undergrad and alumni initiatives including a potential mentor program.
- EQAAN now has formal representation on the Equine Programs Advisory Board to provide feedback from an alumni perspective. This seat is held by the current President. They have also been added to the UK Ag Equine Programs' organizational chart.

- The EQAAN representative serves on the academic committee, which allows for additional feedback from alumni on the status and forward movement of the undergraduate program.

- Virtual Trivia event was held in February 2021 in conjunction with the Wildcat Wranglers ambassador program and the EQAAN group to connect current students and equine alumni and build community between the groups during the pandemic. This will hopefully lead to more partnerships in the future.
- Student Learning Outcomes and overall Assessment Plan were overhauled, and new assessment tools were created to assess student progress through our major and courses. While in its infancy, meaningful data has started to be collected which will hopefully help to aid in us making curricular and programmatic changes in the future.
- The program became certified in the Essential Employability Qualities (EEQ) certification



program, validating our efforts in intertwining work force readiness and employability skills into our curriculum.

Faculty, Staff, Student Contribution to Student Success Outside of the Classroom:

- Students are assigned to an equine-specific academic advisor. Both faculty and staff serve as academic advisors and meet with their assigned students at minimum once per semester. Freshmen are assigned to one of the academic coordinators and then move to a faculty advisor for Sophomore year through graduation. The role of our equine academic advisors is not just to plan out courses for the next semester; students utilize our advisors for long-term four-year plan development, discussing career and internship opportunities, and as the main contact for campus resources when the student has questions. In addition, secondary advisors for pre-vet students are also assigned to one of two pre-vet advisors available in the college.
- An evaluation of the career and employability skill integration throughout the program has led to the development of a Career and Employability Curriculum Framework as a part of dissertation research. This framework takes into account the EEQ's and the scaffolded learning integration throughout the student's time within the program.
- Career advising meetings are offered for all ESMA students beginning their Freshman year. Students meet regularly with a career advisor and academic advisor throughout their undergraduate career. The total number of students who participate in career advising meetings is now being tracked through a scheduling program known as Calendly. This is a tool that allows us to track the scheduled and attended meetings and categorize them by the categories of internship informational meetings, career preparation (mock interview, resume review), and career advisement.
- Due to the pandemic, a virtual career fair was implemented in the 2020 fall and 2021



spring semesters. For the 2021 fall semester, the event transitioned back to an in-person Career and Opportunity Fair held at the University of Kentucky Gatton Student Center.

- Student attendance continues to be tracked through the Handshake website for all career-focused events. Follow-up evaluation surveys are also distributed to students and employers to gain feedback and enhance the process.

- A prospective student high school event was held in collaboration with the 2021 fall Career and Opportunity Fair, highlighting career pathways students can go into if they choose to attend one of Kentucky's equine undergraduate programs.

#### Specific Issues or Concerns Raised by Students as Barriers to Success:

- In the development of the career and employability curriculum framework, student surveys were collected and were followed-up with focus groups from students to gain feedback, give students a voice, and propose changes to the equine career and employability framework. The survey requested feedback on students' gaps in educational experiences and areas of need.
- The identified areas of need included:

- Teamwork (earlier integration);

- Writing and presentation skill and development\*;

- Horse handling (more advanced courses);

- Database management (horse farm management software);

- Work-life balance\*; and

- More career preparation during Senior year (negotiation, job search and acceptance, financial management, mock interviews, resume edits, and feedback)\*. Based on this feedback, some additional efforts (stared above) have been integrated as a part of the curricular framework through the students' feedback. However, there is still more work to be done in many of the categories.

#### **DELIVERY OF INSTRUCTION**

#### Part-time Faculty and/or Graduate Teaching Assistants and Support of Instruction:

- There are three major requirement courses taught by full-time UK Ag Equine Programs' employees with a part-time teaching appointment:
  - EQM 101

\* Taught by Academic Coordinator on overload in both the Fall and Spring semesters since fall 2019

\* This course is an area of concern as it is the gateway course to the Equine Science and Management major and does not have a permanent faculty member teaching it, making the stability of this



course vulnerable. On average, this course has 95-130 students in the fall and 15-30 students in the spring. - EQM 106 and EQM 399

- \* Taught by the Internship Coordinator
- EQM Emphasis area courses taught by parttime instructors who are Equine Programs employees, specifically the Academic Coordinator:

- Specific sections of EQM 300, Wildcat Wranglers student ambassador program as well as the EQM 101 peer mentor course

- EQM Emphasis area courses taught by parttime instructors that are external to Equine Programs: EQM 301, EQM 302, EQM 370 and EQM 375
- Graduate Teaching assistants (when appro-٠ priate, teaching assistants can be identified):

-ASC 101 - assist with the laboratory sessions

-EQM 101 - help run the weekly recitations and peer mentor program

-EQM 105 - help run the weekly laboratory sessions

-ASC 320 - help run the weekly laboratory session

A more targeted effort has been made to increase the number of graduate teaching assistants over the last several years by leveraging some of the teaching assistant personnel lines allocated to the Department of Animal and Food Sciences to offer to eligible graduate students. These lines do not include tuition.

The limitation in recruiting graduate students for these teaching assistant lines are stipends for graduate teaching assistants that cannot be paid using certain types of funding, including Hatch funds and research grants. At this time, suitable teaching assistants have not been identified for EQM 305 to assist with providing first draft feedback on written assignments. In addition, for the spring 2021 semester, no Graduate TAs were able to be identified.

#### Extent of Courses Delivered via Distance Learning:

- For semesters in the spring 2020, fall 2020, and spring 2021, many major requirement courses were offered in fully online or hybrid format due to the COVID-19 pandemic. None of these courses have been approved by UK Senate for distance learning (they were made online due to a blanket exemption by the University of Kentucky Senate) and so all have transitioned back in-person for academic year 2021-2022.
- Currently the only major requirement course approved for distance learning is EQM 399 (there is still an in-person option available as well)
  - -Less than 10% of the overall major requirement credit hours are distance learning
- Emphasis area courses approved for distance learning option: EQM 301 (Thoroughbred Sales), EQM 302 (Equine Event Planning)
   Other emphasis area course offerings are
  - also available online (i.e. CLD 230, ASC 325, AEC 305)
- Emphasis area courses in the process for distance learning approval option include: EQM 370 (Global Sport Horse Industry) and EQM 375 (Thoroughbred Sales)

<u>Proportion of Full-time Faculty Providing Instruc-</u> <u>tion Comparative to Different Course Offerings</u> <u>and Modes of Instruction:</u>

• Full time faculty teach the majority of the ma-



jor requirement and emphasis area courses (see above for exceptions).

• The majority of these courses are offered in-person (see above for exceptions).

#### PEDAGOGICAL INNOVATIONS SINCE LAST PROGRAM REVIEW - WHAT PROMPTED THESE CHANGES?

 Incorporation of peer mentors into freshmen courses: EQM 101 and EQM 106 (undergraduate TAs were already included in EQM 105 at the last review)

-This model was incorporated to help provide leadership opportunities to advanced students and as an attempt to create a greater sense of community within in our major, with the goal of improving first to second year retention in the program.

• Added distance learning options to several courses:

-This was initially prompted by the COVID-19 pandemic; however, most of these courses are taught by part-time instructors external to the University of Kentucky. This allows us more flexibility in securing the most qualified instructor possible - proximity to Lexington no longer being a barrier to teach in-person courses.

Greater incorporation of career and employability skills throughout the entire curriculum:

-This was initially prompted by the curriculum mapping and review process (see above) as well as part of the Essential Employability Qualities (EEQ) certification process. It is continued through the integration of the career and employability skill curricular framework.

Commitment to offering faculty-led educa-٠ tion abroad experiences:

-This was identified as a part of the curriculum mapping process and we had education abroad offerings in summer of 2017, 2018 and 2019. Our efforts have been put on hold since spring of 2020, but we hope to have international experiences available in summer of 2023. We will also strive to have a four-year plan for these experiences as they get underway again, so that as students start our program, they will know what will be offered during their undergraduate years.

#### LEARNING OUTCOMES ASSESSMENT

#### Program Student Learning Outcomes (SLO) Assessment Plans:

In Fall 2020, a student learning outcomes assessment plan was submitted and approved by the University of Kentucky Office of Strategic Planning and Institutional Effectiveness including our revised SLOs as listed in the table below:

- Each program student learning outcome can be linked to each of the eight components of the Essential Employability Qualities certification.
- To review assessment plan documentation, please see the below for appendices references:

-Equine Science and Management PSLO Assessment Plan (*appendix core area 2.k*) -2020-2021 Equine Science and Management PSLO Assessment Report (appendixcore area 2.1)

-Learning Outcomes linked to Essential Employability Qualities (appendix core area 2.n)

Assessment Tools (appendix core area 2.m)

Program SLO #	Program Level Student Learning Outcome Statement	Noticeable Trends in Student Per
1	Students will define, analyze, and articulate their knowledge of equine science and management content.	formance Regarding the SLOs:
	<ul> <li>A. Students will define and analyze industry terms, practices, and topics at various levels.</li> <li>B. Students will demonstrate and evaluate equine handling skills and production management practices.</li> <li>C. Students will construct a summative project that draws on current research, scholarship, and techniques in the equine industry.</li> </ul>	<ul> <li>Only the assessment report for year one of the SLO has been submitted, which only includ ed the assessment for half of the program SLO. UK Ag Equine Pro</li> </ul>
2	Students will apply their knowledge by synthesizing local, national, and/or global issues within the equine industry.	grams is completely or partially meeting all identified benchmarks
3	<ul> <li>Students will communicate effectively and professionally through written, oral, and visual modes of communication. (GCCR)</li> <li>A. Students will construct a variety of communication pieces to articulate topics within the equine industry.</li> <li>B. Students will construct a variety of professionalism pieces to help prepare them for future careers.</li> <li>C. Students will present equine and professionalism topics through various oral communication methods.</li> </ul>	<ul> <li>for the SLO that were evaluated in year one. Trends cannot be identified at this time.</li> <li>SLO evaluated in year one (report submitted June 2021): 1C</li> <li>2, 3 and 4. (appendix core area 2.1)</li> <li>Academic year 2021-2022</li> </ul>
4	Students will execute scientifically informed and ethical decisions by utilizing critical thinking, analytical reasoning, and/or problem-solving skills.	data collection will include assess ing equine specific knowledge
5	Students will work effectively in diverse environments as an individual or as a collaborative team.	obtained in the major require ment courses. • UK Ag Equine Programs is
		working to develop a more arga

Table 9: Equine Science and Management programmatic student learning outcomes.

S working to develop a more organized way to collect assessment data, including creating a timeline to be used to ensure that instructors are reminded prior to the start of each semester what artifacts will be required from their class for assessment purposes. A document including which artifacts from each course are required has been created as a starting place. (appendix core area 2.p)

#### Changes to the Program Based on SLO Results:

With the assessment plan being recently submitted, no programmatic changes have been implemented yet. As outlined above, other programmatic changes were made based on curriculum mapping and the Essential Employability Qualities certification process. UK Ag Equine Programs will continue to utilize the SLO results to shape the curriculum. Reflections on meeting SLO results and updates will not take place until year three. As data and trends are identified, this information will be shared with the curriculum committee at future meetings.

#### STUDENT TEACHING AND/OR RESEARCH AS-SISTANTSHIPS AND FELLOWSHIPS

Undergraduate teaching assistant opportunities have become an increased priority in the last couple of years. Student teaching opportunities currently exist for a number of courses within the undergraduate program. These include ASC 101 (Domestic Animal Biology), EQM 101 (Introduction to the Horse and Horse Industry), EQM 105 (Equine Behavior and Handling), EQM 106 (Introduction to Careers in the Equine Industry), and ASC 310 (Equine Anatomy). Students participating as an undergraduate teaching assistant/peer mentor for ASC 101 are enrolled in ASC 333 (Scholarship of Teaching and Learning in Animal Sciences) and students assisting with EQM 101 and EQM 106 are enrolled in EQM 300 (Scholarship of Teaching and Learning in Equine Science and Management.) Through this opportunity, they serve as peer-mentors to the classes and assist the instructor in teaching lessons, grading, and developing activities (as needed).

In addition, they usually attend a weekly meeting where they not only plan for the week, but also learn new teaching skills and methods to apply with their interactions with students in class. Students serving as teaching assistants in EQM 105 are paid hourly for this service.

Below is a list of the semester these teaching assistant opportunities are available and how





many on average participate.

- ASC 101: Fall 14; Spring 14
- EQM 101- Fall 6; Spring 1
- EQM 106- Fall 1; Spring 1
- EQM 105- Spring 10
- ASC 310 Fall 1; Spring 1

#### **IV. FACULTY AND STAFF**

#### Faculty and Staff Composition:

Unlike other academic departments within the University of Kentucky and the College of Agriculture, Food and Environment, UK Ag Equine Programs is an interdepartmental, transdisciplinary program operating with a core office team. This program relies on and works to build synergies among other academic departments and transdisciplinary programs to fulfill its mission in teaching, research, and extension. UK Ag Equine Programs is unique in having a high-producing core team who regularly collaborates with faculty and staff from the departments of Animal and Food Sciences, Agricultural Economics, Veterinary Science, Biosystems and Agricultural Engineering, Community Leadership and Development as well as other programs and academic units across the university. UK Ag Equine Programs is the front door for all things equine within the university and this structure allows for cross-communication, teamwork, research collaborations, additional teaching resources, and other opportunities to maintain and grow such an important equine footprint for Kentucky, the U.S., and worldwide.

#### UK Ag Equine Programs Core Faculty and Staff:

- James MacLeod, VMD, PhD, Director
- Camie Heleski, PhD, Senior Lecturer
- Jackie Wahrmund, PhD, Lecturer
- Erin DesNoyers, Operations Coordinator
- Savannah Robin, MS, Internship Coordinator
- Holly Wiemers, MA, Communications and Managing Director
- Kristen Wilson, MS, Academic Coordinator

UK Ag Equine Programs and the Equine Science and Management degree program is nurtured and supported by many faculty and staff in other units who contribute to equine related efforts in teaching, research, and extension. To review a complete listing of faculty and staff and their credentials, please see additional documentation with curriculum vitae and resumes in (appendix core area 3.a).

Since the last Periodic Program Review was conducted in 2015, UK Ag Equine Programs has made several position changes:

- Michael Peterson, PhD, served as director from 2017-2019. Peterson is a faculty member in the Department of Biosystems and Agricultural Engineering and is the Equine Safety Director under UK Ag Equine Programs.
- James MacLeod, VMD, PhD, became director in October 2019.
- Camie Heleski, PhD, was hired in 2016 as a senior lecturer for the Equine Science and Management degree program.
- Jackie Wahrmund, PhD, was hired in 2016 as a lecturer for the Equine Science and Management degree program.
- A new internship coordinator was hired in 2017 and this position is currently held by Savannah Robin.
- Holly Wiemers' position was elevated to communications and managing director for UK Ag Equine Programs.

#### Faculty and Staff Deployment:

The Equine Science and Management degree program includes 17 teaching faculty and staff from five academic units including the departments of Animal and Food Sciences, Agricultural Economics, Biosystems and Agricultural Engineering, Veterinary Science and the transdisciplinary unit of UK Ag Equine Programs. Combined teaching, research, and extension activities supporting the equine industry includes 76 faculty and staff from seven academic departments and 124 extension staff.

The Equine Science and Management degree program requires substantial teach-

ing resources to maintain and grow this robust Bachelor of Science program. In serving approximately 300 students, effort distribution is spread across core Equine Programs faculty and staff as well as contributions of effort from individuals in other academic units. UK Ag Equine Programs, at its core, has two faculty positions assisting with teaching core equine courses and two staff members consistently on overload to teach a core equine course. Additionally, there are five adjunct professors hired each fiscal year to assist with teaching equine courses.

#### Part-time Instructors Supporting Equine Science and Management Courses

- Mark Ackerman, EQM 300-Thoroughbred Investments
- Alicia Benben, EQM 301-Thoroughbred Sales
- Sam Geller, EQM 302-Equine Event Planning
- Reese Koffler-Stanfield, EQM 300-Global Sport Horse Industry
- Kristen Wilson, EQM 101-Introduction to the Horse and Horse Industry

Currently, teaching and advising efforts for contributing faculty exceed both their teaching appointment distribution of effort (DOE) and what they define as their desired target teaching DOE. After reviewing the major courses, class size, and administrative need, it was estimated the full-time equivalent (FTE) necessary to deliver required courses, equine-specific emphasis area courses, advising, and oversight of the degree program is the equivalent of 4.73 FTE. This does not include non-equine-specific emphasis area courses. This effort causes strain on teaching resources throughout the College of Agriculture, Food and Environment, particularly in the academic departments of Animal and Food Sciences, Agricultural Economics, and Community, Leadership and Development. The stretched teaching resources also limits capacity to adjust to unanticipated personnel events, such as an extended leave of absence for health reasons, accommodate further student enrollment growth, develop new courses, explore the potential of

developing online courses, or to pursue other innovative instructional initiatives.

To review the full faculty and staff effort distribution for the Equine Science and Management degree program see *appendix core area* 3.b.

Each fiscal year, staff are evaluated through an official performance review process consistent with university human resources policies. Faculty also complete a review process conducted yearly through each academic department. UK Ag Equine Programs' staff work with the director each year to complete a self-evaluation which is reviewed in a one-on-one meeting and finalized with staff and director signatures. During this review, staff can communicate challenges, successes, and identify goals for the next year. The review provides a platform for assessing workload and other issues that need to be addressed. The core office faculty and staff meet weekly as a team, allowing for open dialogue throughout the year on projects, issues, and other programmatic needs; therefore, the director and team generally have a shared understanding of the individual and team workload as well as problems or challenges. UK Ag Equine Programs' faculty and staff serve on several committees within the organizational structure to also stay abreast on issues and successes on a regular basis and work together to seek resolutions.

UK Ag Equine Programs has identified personnel and teaching priorities if additional funding is provided to the program. UK Ag Equine Programs would like to have incentives in place to invest in the faculty and staff who regularly contribute to this program. In a carrot and stick scenario, we want to be a program that offers carrots to those interested in working with the program rather than being the stick for program cultivation and growth.

Research and Teaching

- Fellowship funding to support graduate teaching assistantships to help with equine courses.
- Funding to cover maintenance costs for horses utilized by the teaching program

housed at UK's Maine Chance Farm.

Personnel

- Extend the internship coordinator position currently held by Savannah Robin to more formally include career planning and teaching.
- Extend the academic coordinator position currently held by Kristen Wilson to include teaching. Kristen currently teaches EQM 101 Introduction to the Equine Industry on overload.
- Establish a new academic coordinator position to assist with advising and programmatic needs.
- Provide financial support for the Horse Pasture Evaluation extension position.

#### Equine Programs Faculty and Staff Success:

Contributing faculty and staff are an incredibly dedicated and passionate group. UK Ag Equine Programs recognizes the importance of investing in team members for future success individually and collectively. The program allocates funding each year for the core team to engage in professional development opportunities such as online short courses, conferences, and other growth opportunities to enhance positions and careers.

Furthermore, the UK Ag Equine Programs team has been recognized on multiple accounts for their successes. Notable accolades received in recent years include:

• Equine Science Review publication - American Horse Publications Newsletter Award (2021)

-Editor and writer: Holly Wiemers

• UK Week of Service - American Horse Publications Service Award (2021)

Involvement from Holly Wiemers, Kristen Wilson, Erin DesNoyers, Wildcat Wranglers student ambassadors, and Sabrina Jacobs (Communications and Student Relations Intern)

 Bob Coleman, PhD - American Society of Animal Science-Equine Science Society Leadership, Lifetime Achievement Award (2020), American Society of Animal Science Distinguished Teacher Award (2019), American Society of Animal Science Equine Science Award (2020)

- Laurie Lawrence, PhD Don Henneke Education Impact Award. Service, Professional, Lifetime Achievement Award (2018)
- Kristine Urschel, PhD Equine Science Award, American Society of Animal Science, Scholarship/Research/Creative Recognition Award (2021)
- Kristen Wilson Outstanding Staff Award (Nominee 2020)



#### V. RESEARCH

The breadth and scope of equine-related research interests reflect the overall diverse interests of the faculty. This diversity is a defining characteristic and strength of UK Ag Equine Programs. Broad categories include biomedical topics, animal science, plant and soil science, environmental sciences, engineering, economics, and social sciences. Importantly, research efforts are not limited to direct horse studies, but extend to humans who ride or work with horses, environments in which horses live, the surfaces upon which horses compete, economic issues, social issues, and historical and cultural issues.

Two major parameters by which research productivity is assessed are publications

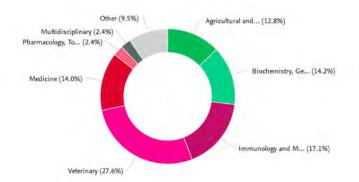


Figure 9: Publications from Equine Programs faculty identified 75-120 peer-reviewed publications annually between 2016 and 2021.

and grant funding. An analysis of publications from Equine Programs faculty identified 75-120 peer-reviewed publications annually between 2016 and 2021 with the expected broad discipline distribution.

Several papers were published in top-tier multidisciplinary journals and many were cited at high levels. The full publication analysis is available as appendix core area 4.a.

A total of 47 equine-related extramural grants totaling direct support of \$4.965 million were awarded between 2017 and 2021. A list of extramural grants is available as appendix core area 4.b. Additional federal and state-mandated program funds for equine-related projects average approximately \$1 million and \$3 million each year, respectively, and are administered through the college's Research Office and Associate Dean for Research.

Primary mechanisms by which UK Ag Equine Programs supports research productivity includes facilitating internal and external communication, a faculty research committee, working to facilitate collaborative and transdisciplinary projects, and in organizing an annual UK Equine Research Showcase.

Subsection VII in this self-study includes a specific discussion of communication efforts, so those details will not be repeated here. However, monthly stories in the Equine Science Review e-newsletter and associated individual news releases greatly facilitate awareness of individual research programs and important findings to equine industry stakeholders and the public generally. In fact, these stories are frequently picked and reprinted by leading horse lay publications both nationally and even internationally.

Internal communication and logistical support are important catalysts by which Equine Programs facilitates collaborative and transdisciplinary research projects. This can be illustrated by two current examples. The 2022 Kentucky Equine Survey will quantify the number and use of horses, ponies, mules, and donkeys in the state. The principal investigator is collaborating with extension personnel across the state, as well as major industry stakeholder groups to collect the primary data. This is an important, high-pro-



file project for many reasons - economic, social, informing public policy decisions, biomedical (enabling epidemiological analyses), and more. Equine Programs has helped to connect this collaborative group, as well as to secure research funding. This includes a \$200,000 grant from the Kentucky Agriculture Development Fund and a required match from equine industry stakeholders.

A second and very recent example is the consideration of a transdisciplinary program on equine agriculture and climate change. Initiation of this effort by Equine Programs reflects an awareness of substantial (new) federal money coming available this year to support academic initiatives regarding relationships between agriculture and climate change. Summarized below are the emergent thoughts. Each component represents to some degree an individual research program that already exists at UK, but by working together, they provide the opportunity for powerful collaborations and synergies which should enhance the potential to compete for major federal funding and develop novel teaching and extension efforts.

1. Impact of Climate Change on Equine Agriculture

-Warm season grass encroachment into cool season pastures

-Changing geographic range distribution of insects and arachnids that are equine disease vectors

-Changing geographic range distribution and epidemiology of equine infectious diseases

-Changing geographic range distribution of equine parasites

-Economic considerations

2. Contributions of Horses and Equine Agriculture Practices to Climate Change

> -Hindgut fermentation - relationship to the production of greenhouse gasses -Manure management - anaerobic condi-

> tions in manure stacks, relationship to the production of greenhouse gasses, composting, bedding type considerations, nutrient variables.

-Soil ecology

3. Mitigation of climate change impacts on equine agriculture

-Assessment of novel horse feed ingredients that are either easier to cultivate or more environmentally appropriate due to climate change

-Development of forage plants more suitable for pastures in a climate change world -Optimized aeration and composting manure management practices

4. Opportunities for equine agriculture to contribute to the mitigation of climate change effects through regenerative agriculture - the role that equine agriculture might play in restoring healthy soils and healthy forage environments

The UK Equine Research Showcase is an



annual event held in late January over one to two days that provides an opportunity for researchers and students to overview equine-related research efforts to our stakeholders. All of the presentations center on University of Kentucky programs; outside speakers are not included. The event is very well received and has been held for 10 years. (*appendix core area 4.c*)

The faculty research committee considers how to facilitate equine-related research within the context of the goals and mission of Equine Programs. They also organize and take leadership on the annual Research Showcase program. The chair of the research committee is a member of the Equine Programs Executive Committee (see subsection Core Area 8-administration and governance).



VI. SERVICE, EXTENSION AND OUTREACH

Equine-related extension activities are supported by faculty and staff on the University of Kentucky campus and by county agents across the state. Their efforts support a robust equine agricultural economy within Kentucky ranging from large Thoroughbred farms that literally have many of the most valuable horses in the world to small non-commercial farms with only a few horses. Essentially all breeds and equestrian disciplines are present at some level in the Commonwealth, with many recreational owners, riders, and horse enthusiasts. Importantly, extension areas recognized by Ag Equine Programs extend to indirect horse-related activities and businesses, including forages and feeds, pasture management, barn design, fencing, agricultural equipment, and environmental stewardship.

While direct in-person workshops, presentations, and youth activities focus on Kentucky citizens, the educational material and related informational guides are valuable contributions to the broader equine community nationally and even internationally.



Extension activities for adults include presentations, workshops, field days, and other events organized through a Master Horse Owner program and pasture management activities. For example, Dr. Bob Coleman (Equine Extension Specialist) has worked with the Northern Kentucky Horse Network to plan and host Annual Equine Conferences each fall for the last five years. He is also helping lead the multi-state Extension Horses Inc which is developing educational materials and programs for horse owners across the country. Dr. Coleman and Dr. Ray Smith (Forage Extension Specialist) work closely with the Kentucky Equine Agent Working Group and the industry to plan and deliver regional and state extension annual programs, including the winter Pastures Please!! event and the Farm and Facilities Expo late spring each year.

The Kentucky Agent Working Group also initiated a first Friday of the month update session on equine-related topics for county agents. Dr. Coleman has worked with the Agent Working Group on this activity and has been responsible for the content for each program. While the primary group participating is Agriculture and National Resource Agents, participation is welcome from all county extension staff.

The extension programs of Drs. Coleman and Smith have led to several unique extension/ research partnerships. They joined with Dr. Laurie Lawrence and research analyst Krista Lea to develop a national horse owner hay buying survey and hay producer/broker survey. Additional partnerships included the NRCS-Resource Conservation Partnership Program grant "Overgrazing and Soil Degradation" that was the most successful RCPP project in the state. This group also joined with Dr. Jill Stowe on the national NRCS-Conservation Innovation Grant "Ecological and Economic Impacts of Resource Conservation on Horse Farms."

Dr. Fernanda Camargo (Equine Extension Specialist) oversees the Kentucky 4-H Horse Program, and conducts youth and adult extension activities. Her educational programs focus on youth development, rider safety (professional and amateur), and animal health and welfare.







These are delivered in person or virtually, and include workshops, seminars, horse volunteer certification program, agent in-service trainings, to name a few. The competitive activities include horse knowledge contests (horse judging, hippology, horse quiz bowl, communications, arts and crafts, and photos), and horse showing at the Kentucky State Fair 4-H Horse Show, which has eight divisions to include multiple styles of riding. Dr. Camargo has developed multiple international, national, local and within the university collaborations and partnerships, including with UK HeatlhCare, Equine Guelph, KEEP, the Kentucky Horse Council, Appalachian Horse Project, United States Pony Clubs, United States Equestrian, Kentucky Department of Education, The Race for Education, Amplify Thoroughbreds, Gluck Equine Research Center, UK College of Health Science, UK College of Public Health, and many others.

Dr. Morgan Hayes (Biosystems and Agricultural Engineering) has worked closely with Dr. Coleman to improve the design of horse barns and indoor and outdoor arenas. Their work focuses on facility layouts and ease of access for both vehicle and equine traffic, air quality within the buildings, and water management around these impervious areas. The pair are also working on outreach efforts using to a small farm muck composting demonstration site at Maine Chance Farm supported by the University of Kentucky Sustainability Council.

Finally, faculty without formal extension appointments respond frequently to ad hoc emails and telephone calls from both stakeholders and the public on topics related to horse care and management. An overview of all extension efforts quantified and tabulated over the last five years (appendix core area 5.a).

Outreach and service areas are also important public interaction points that exist under the umbrella of UK Ag Equine Programs. These include:

UK's Veterinary Diagnostic Laboratory (<u>http://vdl.uky.edu/</u>)

- The busiest diagnostic laboratory in North America for horses, currently accepting 200,000 equine submissions each year.

- The Equine Analytical Chemistry Lab

   Regulatory and testing policies that prioritize the health of equine athletes and provide integrity for all equestrian sports, led by Dr. Scott Stanley.
- The Horse Pasture Evaluation Program (<u>https://forages.ca.uky.edu/pasture\_eval</u>)
   This program, led by coordinator Krista Lea, provides comprehensive evaluations and detailed recommendations to solve toxicity issues and improve overall pasture production and quality appendix core area 5.b.
- Track Surface Research and Testing

   Pioneering advanced knowledge on racetracks and other competition surfaces to improve safety, led by Dr. Mick Peterson.
- Genetics Testing at Gluck (<u>https://getgluck.</u> <u>ca.uky.edu/</u>)

- Offering a variety of genetic testing services to horse owners and individual breed registries, led by Dr. Kathryn Graves.

 Other Analytical, Diagnostic, and Assessment Services

- Smaller and program-specific outreach and service efforts across multiple disciplines.

The primary mechanism by which UK Ag Equine Programs supports extension activities and productivity are through internal and external communication efforts (see Subsection VII).



Individual news releases, both print and video (Mill Ridge video <u>https://youtu.be/SdLINefKQTY</u>) as well as assistance with the design and distribution of promotional material provide frequent

opportunities to work together (appendix core area 5.c). Program "Success Stories" released over the last five years that have been highlighted in internal and external media stories showcasing these efforts (appendix core area 5.d). Additionally, the chair and co-Chair of the extension committee are members of the Equine Programs Executive Committee (see subsection IX).

#### VII. COMMUNICATIONS, PHILANTHROPY AND STAKEHOLDER RELATIONS

The formation of UK Ag Equine Programs in 2005, then called the UK Equine Initiative, came in the aftermath of the Mare Reproductive Loss Syndrome of 2001-2002, a catastrophic disease event that resulted in a loss of nearly 30% of



that season's foal crop in Central Kentucky. The response by the College of Agriculture, Food and Environment was a research success story by almost any measure, but arguably a communications failure that resulted in a reputational hit for the college and existing equine research departments.

When UK Ag Equine Programs formed under that perceptional backdrop, communication became an essential and early part of the organization. Since then, UK Ag Equine Programs has maintained a very active role in communication, marketing, and reputational stewardship, with support for and sustained activity in all three of the college's mission areas of teaching, research, and extension.

The communications arm of the core office team oversees the college's equine marketing communications functions. This includes integration and oversight of equine media relations, public relations, communications planning, and communication campaign execution through newsletters, advertising, social media, website, marketing collateral, events, partnerships, and other important communications tools in adherence with UK's brand standards and guidelines. This communications function also serves a vital industry relations role in helping to build and enhance relationships with key stakeholders and policy makers and to help support the equine philanthropic efforts within the college.

#### NEWSLETTERS

One of the primary communications tools the program employs are a variety of free e-newsletters, each tailored for a specific stakeholder audience for the program. Several have won local and national awards recognizing their impact. All utilize Mail Chimp as a distribution and subscription tool and as a whole garner a 53.8% open rate on the platform, with hundreds of likes and dozens of shares on social media. With the exception of the research newsletters, the other newsletters cross promote UK Ag Equine Programs' stable of publications as a whole.

The most established of the program's

newsletters is the *Wildcat Canter*, a student centric newsletter with a focus on UK Ag Equine Programs' news and features and a wide range of spotlights, from students to classes, advisors, scholarships, and alumni. Its purpose is to keep students, alumni, and those interested in UK's equine programs updated. It is distributed 10 times each year via Issuu and Mail Chimp and shared with the distribution list, Equine Forum, and social media. It has won several times at the local level with the Lexington based Public Relations Society of America for best newsletter. Current and past issues of this publication can be found at <u>https://equine.ca.uky.edu/wildcat-canter</u>.

The Equine Science Review: highlighting research and outreach efforts at the University of Kentucky is a monthly newsletter that highlights the important equine research and outreach happening at the university. It replaced a 10.5-year-old publication called the Bluegrass Equine Digest that featured UK's equine research in conjunction with The Horse magazine and at its peak boasted more than 60,000 subscribers from more than 101 countries. Both the sunsetted Bluegrass Equine Digest and the current Equine Science Review have won top honors with American Horse Publications, a particularly noteworthy award since UK competes in a corporate category against organizations like Zoetis, Purina, and others. This publication has also been recognized by the Lexington chapter of the Public Relations Society of America for its excellence.

Part of our cultural DNA is the dissemination of our research and its application to our stakeholders, which includes horse owners, horse farm managers, members of the equine interested public, and equine media. Those audiences are who the publication is aimed toward, and often this publication is the only way some of the university's equine research efforts are publicized to a lay/nonscientific audience. Stories are published via a PDF and via Issuu each month and shared via Mailchimp to subscribers. Equine media are also welcomed to use any of the contents in their publications if they are interested, with a request that they credit the University of Kentucky for the information. Many have done so, with frequent pickups from publications like *The Horse, Paulick Report, Equi Management* and *Horse Talk* in New Zealand. Individual stories are also found on UK Ag Equine Programs' website, and shared individually via Facebook and Twitter, on both the UK Ag Equine Programs' and Gluck Equine Research Center's social media accounts. The sharing of a full publication and then individual stories within has furthered the reach of the information we publish.

Since its launch in April 2020, the Equine Science Review has published 236 total stories, 104 in 2020 and 132 in 2021. All issues can be found on UK Ag Equine Programs' website at https://equine.ca.uky.edu/equinesciencereview.

The newest member to the program's stable of publications is the *Graduate Gallop*, an alumni-focused monthly newsletter that is also distributed and subscribed to via Mail Chimp. Its contents are planned and implemented by both Equine Programs team members and members of the alumni arm of the program, EQAAN. It features news and updates as well as career opportunities relevant to alumni of the program. It can be found online at <u>https://equine.ca.uky.edu/</u> <u>news-pubs-resources/graduate-gallop</u>.

*Tuesday Tidbits* is published weekly during the spring and fall semesters and is sent directly to current equine students. It features important announcements, deadlines, and internship/job/ volunteer opportunities. In contrast to our other publications, which employ a double opt-in subscription mechanism, students are automatically signed up for the Tuesday Tidbits, and then removed after they graduate.

Coming into the fold in 2022 will be the long standing, highly regarded and internationally recognized *Equine Disease Quarterly*. Published by the Department of Veterinary Science as a print quarterly newsletter and archived online, the EDQ recently had a sponsorship change from Lloyd's of London to Equus and will be distributed online starting in 2022. It will likely be managed similarly to Equine Programs' other newsletters on behalf of the Department of Veterinary Science by Equine Programs' staff. Archived issues of that publication can be found online at <u>https://gluck.ca.uky.edu/equine-disease-quarterly</u>.

#### WEBSITE

UK Ag Equine Programs provides information to many of its stakeholders via an actively updated website, which was significantly overhauled in 2020 under a new Drupal platform with considerable enhancements and updates. It features information about the program, equine efforts at UK in general, upcoming events, features and news, newsletters, and other communications. In January 2022, the site saw just under 41,000 visits, from the U.S. and internationally. The site can be found at <u>https://equine.ca.uky. edu/</u>.

#### SOCIAL MEDIA

UK Ag Equine Programs was an early adopter of social media, with a Facebook presence that goes back to late 2007, even before the platform was widely available outside of a university setting. The program currently actively maintains a Facebook page for Equine Programs and the Alumni chapter of EQAAN, an Instagram page, and a Twitter account. Additionally, the program has a YouTube channel and not yet fully activated Linked In page. Staff from the program also help maintain the Gluck Facebook and Twitter accounts.

Stats for Equine Programs' managed social media:

- Equine Programs' Facebook page has 2,484 likes and 2,729 followers
- EQAAN Facebook page has 428 likes and 459 followers
- Gluck's Facebook page has 5,828 likes and 6,988 followers
- Equine Programs' Twitter account has 834 followers
- Gluck's Twitter account has 886 followers
- Equine Programs' Instagram account has 1,076 followers

#### MEDIA RELATIONS

UK is frequently communicated with by members of the media pursuing a story about an equine topic and its equine faculty are considered some of the foremost experts in the world in their respective field. Equine Programs both responds reactively to media requests and proactively via story pitches and news releases. Equine Programs maintains an equine media list and the news releases that are generated and distributed by the program not only go out to the college's general statewide media list, but also to our equine specific list, which garners substantial industry pickup of these stories.

Since the inception of the program, more than 330 equine specific news releases have been distributed. Current stories are automatically fed to the front page of the program's website.

#### EVENT COMMUNICATION AND SUPPORT

Equine Programs routinely supports events it holds as well as events held by others within the college through a variety of communication efforts, including news releases, newslet-

## **UK EQUINE WEEK OF SERVICE**









ters, collateral, and event staffing.

Reoccurring events held by the program include:

- Equine Research Showcase
- Equine Career Fair
- Graduation Reception
- Welcome Back BBQ for students
- Get the Scoop for new students to learn about clubs and teams
- Equine Internship Showcase
- Wildcat Wrangler led Equine Week of Service (an event recognized nationally by American Horse Publications and with UK's Board of Regents as an area of excellence in 2020)
- Wildcat Wrangler led initiatives in general
- College of Agriculture, Food and Environment led Experience Equine recruiting event

Equine events held within the college that Equine Programs provides communications support to include

- Pastures Please!!
- Equine Farm & Facilities Expo
- Various extension-based events and field days

Other events that Equine Programs has an active participation in (booth display, collateral, staffing, and ancillary event planning) include:

- Land Rover Three Day Event, trade fair and tail gate
- American Saddlebred Horse and Breeders Association annual youth meeting
- Retired Racehorse Project
- EQUTANA 2021 (we will likely not participate in this again)
- U.S. Pony Club Festival and Championships
- Hats Off Day
- Kentucky Farm Bureau annual meeting

Finally, significant communications support is given to special projects and events, including the Kentucky Equine Survey, legislative updates and testifying, special occasions like the 2021 UK Maine Chance Farm bred Averly Jane Breeders' Cup qualification, and timely disease and equine health updates, such as an annual Eastern Tent Caterpillar hatch update, nocardioform placentitis update, novel Rotavirus B news release, among others.

#### COLLATERAL

UK Ag Equine Programs maintains a portfolio of more than 20 printed and online materials about the program and its components. These are currently in the process of being updated for 2022.











#### ADVERTISING

In the early days of the program as it was forming and building awareness, UK Ag Equine Programs sought out paid media opportunities through print and digital advertisements with trade and industry publications. In the last several years, with budget cuts and because the program has moved from an awareness building mode to an approach more targeted to information on specific programs, research, fundraising, and recruitment, we rarely pay to advertise, instead relying on our earned media approach via media relations and our newsletters.

#### PODCAST

After the Bluegrass Equine Digest sunsetted at the end of 2019, that partnership between The Horse and UK Ag Equine Programs transitioned to a monthly podcast named Equine Innovators. Equine Programs' communications and The Horse editor meet and plan the roster of UK Equine Researchers that will be featured that calendar year. Podcasts can be found at <u>https://thehorse.com/topics/media/podcasts/equine-innovators/</u>.

### ADHERENCE TO UK BRAND STANDARDS AND PUBLICATION TEMPLATES

Part of the role of the Equine Programs' communications staff is to ensure the program follows the brand standards and guidelines that have been articulated by UK's main campus. We help our people and publications follow the branding, color, font, content template, and graphic design elements mandated/strongly encouraged by UK. This carries through our collateral, social media, publications, and event communications.

#### PHILANTHROPIC SUPPORT

Our program is incredibly fortunate to have access to a full-time philanthropy officer dedicated to equine support. There are several equine giving funds established in the college, and more about the college's direction can be found at https://alumni.ca.uky.edu/content/ ways-give. Additionally, specific information about the program's philanthropic priorities can be found in the budget section of this self-study document.

Part of the role of communications for Equine Programs is to help provide support to the ongoing and new equine philanthropic efforts within the college.

#### INDUSTRY RELATIONS

In addition to the outward communications and partnerships we have with our equine industry, our program works hard to have a presence at the reoccurring meetings and events that happen in the Central Kentucky region. In addition to those outlined above and those done in conjunction with our extension work and research collaborations, we also regularly attend meetings like the Kentucky Thoroughbred Farm Managers' Club and Kentucky Equine Networking Association, an association that was formed through a partnership with the Kentucky Horse Council and UK.

### INTERNAL OPPORTUNITIES FOR NETWORKING AND COLLABORATION

When UK Ag Equine Programs formed in 2005, we were created to be vastly different than what had been done before. The goal of our administration was to break down departmental and focus area silos to better serve the equine





industry and to enable meaningful interaction and community around the very broadest sense of equine science.

One of those internal efforts was the creation of the UK Equine Forum, a monthly in-person meeting (which now has a Zoom component since the pandemic) that brings together any faculty, staff, or student at UK with an equine interest, as well as interested external stakeholders, to talk about topics around equine at UK and in the industry. The Forum has been meeting regularly since June 2006 and has resulted in multiple cross-departmental collaborations and internal awareness.

## VIII. DIVERSITY, EQUITY AND INCLUSION

EQUINE PROGRAMS DIVERSITY, EQUITY AND INCLUSIVITY

Equine Programs has taken steps to make diversity, equity, and inclusion (DEI) efforts a priority. As a program, we strive to foster an open and welcoming program for all students wanting to turn their equine passion into a career. The equine industry workforce is comprised of a diverse population and Equine Programs recognizes the importance of providing current students with the tools necessary to navigate the workforce landscape as professionals after graduation. Moreover, Equine Programs is working towards building a framework to more successfully recruit underrepresented minorities who have an interest in studying Equine Science and Management.

The faculty and staff of Equine Programs are working together to identify and implement DEI initiatives to help students feel welcome when they arrive on campus, elevate the Equine Science and Management curriculum, give students a platform to voice their opinions and provide feedback, as well as build upon recruitment of underrepresented minorities.

The table below displays the representation of Equine Science and Management students in years 2009, 2015, and, more recently, 2021. The program has seen an increase in diversity since its inception and Equine Programs would like to see these numbers continue to grow.

In 2020, the Equine Programs DEI subcommittee was formed. Members of this subcommittee also serve on the College of Agriculture, Food and Environment Diversity, Equity, and Inclusion Committee, bridging the gap between efforts at the programmatic and college levels. Members of the subcommittee include those who are involved with Equine Programs,

	Fall 2021	Fall 2015	Fall 2009
White	221 (81.3%)	286 (84.6%)	114 (94.2%)
Hispanic	22 (8.1%)	14 (4.1%)	1 (0.8%)
Black	10 (3.7%)	10 (3%)	
Multi-racial	7 (2.6%)	5 (1.5%)	
Asian	4 (1.5%)	1 (0.3%)	
American Indian/Alaskan Native			1 (0.8%)
Unknown	8 (2.9%)	18 (5.3%)	5 (4.2%)

Table 10: Equine Science and Management Student Diversity – This table displays the representation of Equine Science and Management students in years 2009, 2015, and, more recently, 2021. The program has seen an increase in diversity since its inception and Equine Programs would like to see these numbers continue to grow.

but also have distributions of effort within other departments such as Animal and Food Sciences.

UK Ag Equine Programs Diversity, Equity and Inclusion Subcommittee members

- Dr. Camie Heleski (Chair), Equine Programs, Animal and Food Sciences, Senior Lecturer
- Erin DesNoyers. Equine Programs, Operations Coordinator
- Savannah Robin, Equine Programs, Internship Coordinator
- Dr. Jackie Wahrmund, Equine Programs, Animal and Food Sciences, Lecturer
  - Holly Wiemers, Equine Programs, Communications and Managing Director
  - Kristen Wilson, Equine Programs, Academic Coordinator

In addition to faculty and staff within Equine Programs working together on DEI initiatives, more importantly, a need was recognized to give students a voice in assisting Equine Programs and their colleagues. An Equine Programs DEI Student and Alumni Subcommittee was created with the intent to empower current students and recent Equine Science and Management graduates to provide feedback and contribute to DEI efforts that will impact current and future students. Dr. Camie Heleski, Equine Programs' Senior Lecturer, serves as the faculty liaison and Erin DesNoyers, Equine Programs' Operations Coordinator, is the staff liaison.

Committee members include the following, with continued growth foreseen on the committee:

- Ariel Baldon a junior in Equine Science and Management
- Satya Benoit a junior in Equine Science and Management
- Stacey Cameron a junior in Equine Science and Management; member of UK Eventing Team
- Charles Churchill, a senior in Equine Science and Management, Wildcat Wrangler, interim employee - Kentucky Horse Racing Commission
- LaRodra Cox a junior in Equine Science and Management
- Victor Cruz a '21 graduate, employed at Siena Farm

- Alex Davis a senior in Animal and Food Sciences, with strong equine interests
- Alyssa Evans a '21 graduate, manages a sport horse breeding farm
- Harrison Goode a sophomore in Equine Science and Management, vice president for Minorities in Agriculture, Natural Resources and Related Sciences (MANNRS) and avid American Saddlebred equestrian
- Micah Hurt a '20 graduate, now pursuing her master's at UK in Diplomacy and International Commerce
- Szu Yuan Ke a '20 graduate, employed at Brookdale Farm
- Christine Lim a junior in Equine Science and Management
- Deja Robinson a senior in Equine Science and Management with a minor in Animal and Food Sciences

With these committees working in tandem, several brainstormed ideas have come to fruition, while others are continual and future goals for Equine Programs.

- 1. Weave DEI into the curriculum:
  - a. Workshops and unconscious bias training incorporated into EQM 305

i. Starting in the 2021 fall semester, the EQM 305 Equine Industry Issues class now includes an unconscious bias training and workshop coordinated with the College of Agriculture, Food and Environment Office of Diversity. During the 2022 spring semester, EQM 399 Equine Science and Management Internship course will also include an unconscious bias training and EQM 305 will include a guest speaker from the College of Agriculture, Food and Environment Office of Diversity.

b. Diverse guest speakers

i. Students studying Equine Science and Management often have the opportunity to hear from guest speakers in their classes. Guest speakers can help provide connections between the curriculum and real-world experience as well as exposure to careers within the equine industry. Equine Programs is making a conscious effort to invite more diverse speakers into the classroom to help further affirm opportunities for underrepresented groups are obtainable.

- 2. Equine industry engagement, collaborations, and partnerships
  - a. Partnerships among student events

i. Equine Programs plans many student-focused events throughout the academic year, and by delving further into DEI discussions among faculty, staff, and students, wonderful partnerships have formed.

1. African Cemetery No. 2

a. The Wildcat Wrangler equine student ambassadors have planned two service events to benefit this historical cemetery in downtown Lexington. For the 2021 Spring into Service and 2021 Week of Service events, students, faculty, staff, and alumni volunteered their time to spruce up the cemetery by landscaping and planting flowers. Equine Programs is currently looking into other opportunities for a continued partnership with the African Cemetery No. 2.

2. Ed Brown Society

a. Co-founders Ray Daniels and Greg Harbut have presented at the monthly Equine Forum meeting put on by UK Ag Equine Programs. The Ed Brown Society has also brought high school students to campus to learn about the Equine Science and Management degree program and several current students have or are interning with the Ed Brown Society.

3. College of Agriculture, Food and Environment MANNRS Club

a. The College MANNRS chapter and Office of Diversity are two groups Equine Programs seeks opportunities to create partnerships with. MANNRS partnered with the Wildcat Wranglers for the 2021 Spring into Service event. Several Equine Science and Management students are involved with MAN-NRS, a few in leadership capacities, helping to maintain ties between our programs.

b. Representation on the Equine Programs Advisory Board

i. The Advisory Board is comprised of various equine industry stakeholders who serve to assist Equine Programs with curriculum, philanthropic efforts, outreach, and overall programmatic support. As terms end and board seats become vacant, the nominating committee is seeking to populate seats with diverse members.

3. Student recruitment

a. As Equine Programs works toward integrating diversity, equity, and inclusion efforts within the curriculum and other areas, we then look to recruitment. The goal has been to make key transitions within Equine Programs to pave the way for setting goals for recruitment of diverse and underrepresented minority students. The curriculum and program should be a welcoming and inclusive environment for everyone who wishes to enter our major. By consciously making changes and adding new initiatives from within, the hope is to build a foundation to transcend into being a program open to all who are inclined to study equine with the goal of becoming a professional in the equine industry. Equine Programs plans to work in the coming years on identifying strategies for bettering recruitment in this area.

## IX. ADMINISTRATION AND GOVERNANCE

UK Ag Equine Programs has taken steps in recent years to bolster its administrative structure to create and allow for synergies among aca-



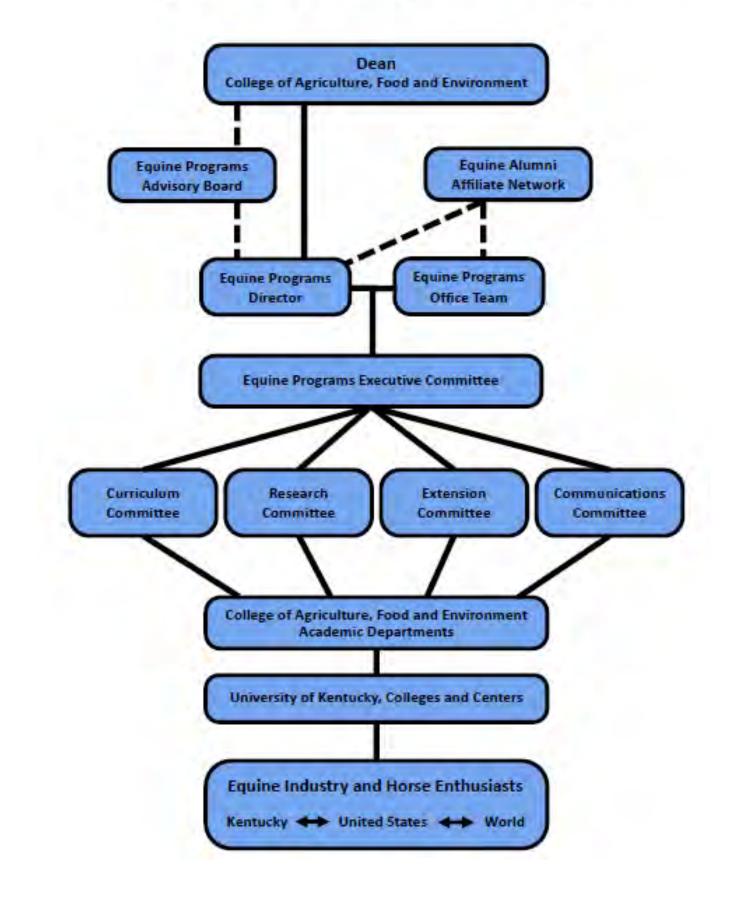


demic departments, units, committees and organizations to strengthen this inter-departmental, trans-disciplinary program.

One step was to revitalize the organizational chart (*appendix focus area 8.a*) in 2019 to better display the committee structure, Equine Programs Advisory Board, Equine Alumni Affiliate Network, and core office team. It also demonstrates how each piece interacts not only with UK Ag Equine Programs, but also with the college, university, and world. The Equine Programs Advisory Board and Equine Alumni Affiliate Network groups were added because these boards do important work in supporting the program, its students, research initiatives, outreach, and philanthropy.

The Executive Committee and subcom-

#### **UK Ag Equine Programs Organizational Diagram**



mittees are comprised of faculty and staff who contribute to equine-related efforts through the core administrative functions of teaching, research, extension, the undergraduate degree program, and communications and philanthropy. The chairs of each of the subcommittees serve on the Executive Committee to better enable direct communication between each area of focus.

The Executive Committee, chaired by the director of UK Ag Equine Programs, is envisioned to have a central role in shared oversight and strategic planning of UK Ag Equine Programs. This committee meets quarterly, and the two primary objectives are to facilitate internal communication and discuss programmatic issues. In this context, the agenda for each meeting includes short reports and updates on administrative, teaching, extension, research, and communication events and issues. This is followed by an open discussion of programmatic ideas, initiatives, and priorities.

A complete listing of executive and subcommittee members can be found in *appendix focus area* 8.b.

The Equine Programs Advisory Board was established in 2009 as an advisory committee to serve as the central industry advisory mechanism for UK Ag Equine Programs. The charge of this group is to ensure that all university components work together to benefit the equine industry. The Board is the primary advisor to the Dean of the College of Agriculture, Food and Environment and the director of UK Ag Equine Programs on equine-related issues from a stakeholder and industry perspective. This Board meets twice a year to provide advice on major issues, decisions, strategies, and trends that impact the relationship of the program to the equine industry in Kentucky and beyond. The Board consists of 23 members (appendix focus area 8.c) who represent the equine industry and related industries extending across a broad range of breeds and organizations. The Equine Programs Advisory Board recently implemented a committee structure to further the mission as follows:

• Nominating Committee: This committee provides a slate of nominees as positions become vacant as well as makes recommendations of prospective members.

- Academic Committee: Responsible for discussing the Equine Science and Management undergraduate curriculum, activities, and other educational initiatives.
- Philanthropy Committee: Takes an active role in discussing financial needs and fundraising efforts in conjunction with the Equine Philanthropy Director. This committee can make recommendations on philanthropic strategy and priorities.

As mentioned earlier, one key group added to the organizational chart was the Equine Alumni Affiliate Network (EQAAN). In 2019, this group was formally accepted as an alumni affiliate network under the College of Agriculture, Food and Environment Alumni Association. Equine Science and Management alumni make up the Board of Directors who assist with alumni relations through a variety of efforts to include networking events. With approximately 500 equine alumni, EQAAN provides an avenue to stay involved with the university, UK Aq Equine Programs, and the College of Agriculture, Food and Environment. EQAAN welcomes all alums to participate, whether that is through attending networking and social events, joining a committee, or serving in other volunteer and philanthropic capacities to give back. This group is still young and working to get established as an affiliate network but is dedicated to fostering community and providing support for UK Ag Equine Programs and the College of Agriculture, Food and Environment. EQAAN is an integral piece of the organizational structure to maintain a relationship with alumni through philanthropic efforts, creation of job opportunities for students before and after graduation, guest speakers for classes, volunteer and committee work, student mentoring, barometer of program success, and so much more. To read more about EQAAN and review a Board of Directors listing, please visit here.

UK Ag Equine Programs' organizational and committee structure is carefully curated

to strengthen the program in all aspects of the three pillars of the land grant mission in teaching, research, and extension. The goal is to empower these groups to work on exciting new initiatives, assist with programmatic issues, provide insight, and maintain a flow of communication within their respective areas and collectively at the Executive Committee and Advisory Board level. As a result, UK Ag Equine Programs has seen the direct positive impact of the work being conducted such as curriculum overhaul and advancement, the launch of new publications, philanthropic opportunities, expanding stakeholder reach, building a stronger alumni community, introducing and providing new enrichment opportunities for students, research collaborations, facilitation of extension and outreach efforts, and so much more.

Members of the core office team, committees, and boards are a passionate and dedicated group of people who have invested interest in the success of UK Ag Equine Programs. It takes a village and we want to have opportunities as a program to incentivize individuals and groups within our organizational structure to continue carrying out the mission and vision. Volunteer work can be incredibly rewarding; however, it is also important to provide resources and value to expand and grow. Having additional financial resources to help in addressing programmatic issues, implement ideas, and increase active participation discussed within all areas of the organizational structure would be instrumental.

#### **X. BUDGET AND FACILITIES**

#### EQUINE PROGRAMS BUDGET AND FINANCES

#### <u>University of Kentucky Funding Model and Tui-</u> <u>tion Revenue:</u>

Student tuition and fee revenue supports a variety of university operating expenses, student programs, and other general fund expenses, including faculty and staff compensation, student support and health services, student financial services, extra- and co-curricular programming, student advising, academic degree programs, IT services, facility operations and maintenance, libraries, and scholarships and financial aid, among others. As a result, a portion of tuition revenue is held centrally to support university-wide programs and does not transfer directly to the student's department of record. Individual academic programs are supported by a mix of tuition and public and private revenue.

#### Equine Effort and Programming Budget Overview:

As an inter-disciplinary program, equine research, teaching, and extension spans across multiple areas within the university. The University of Kentucky College of Agriculture, Food and Environment investments total more than \$1.3 million in direct, recurring equine-related academic programs, experiential opportunities, and hands-on industry engagement that support workforce development for one of Kentucky's signature industries. This does not include the recurring investment of more than \$14 million in research, teaching, and extension services to support related academic efforts. The below chart represents funding allocation for equine-related programming across the college and university. You can read more details about each expense area below.

#### Faculty and staff compensation:

- The Equine Science and Management degree program includes 17 faculty and staff from five academic units, including Animal and Food Sciences, Agricultural Economics, Biosystems and Agricultural Engineering, Veterinary Science, and the interdisciplinary unit of UK Ag Equine Programs.
- Combined teaching, research, and extension activity supporting the equine industry includes 76 faculty and staff from seven academic departments and 124 extension staff.

#### Facilities and instructional infrastructure:

Students make use of on-campus and

Expense Area	Teaching Mission	Combined Teaching, Research and Extension
Faculty and staff compensation	\$506,000	\$8,338,000
Facilities and instructional infrastructure	\$630,000	\$5,859,000
Student programs	\$24,000	
Student advising	\$128,000	
Student financial aid and scholarships	\$51,000	
Operations	\$43,000	\$323,000
TOTAL	\$1,382,000	\$14,520,000

Table 11: Equine-related program funding across the college and university – This includes funding that does not come solely from UK Ag Equine Programs' financial accounts, but from other academic departments and units which have equine-related programming and faculty distribution of effort supporting teaching, research and extension.

off-campus instructional facilities and herds, including classrooms, farms, horses, and stables. These facilities also support work across the college's three mission areas.

• Operations and maintenance effort to support all three mission areas and include feed, facility upkeep, and pasture maintenance.

#### Student programs:

- Students participate in program-organized career and professionalism events, internships, and co-ops to support and strengthen class-to-career pipelines.
- The college invests in student-led equine clubs and teams.

#### Student advising:

• <u>S</u>tudent success and advising is supported by 11 staff and faculty, with some advisors serving as many as 50 students. This includes advisors for the Equine Science and Management degree program as well as those advising equine students in other areas such as pre-veterinary studies and secondary programs.

#### Student Financial Aid and Scholarships:

 Students have access to and can apply for two scholarship programs, one directed toward equine students and the other offered broadly to College of Agriculture, Food and Environment students.

#### Operations:

- General operations, communications, and professional development for Equine Programs.
- However, operations for the academic departments of Animal and Food Sciences and Veterinary Science contribute to the total scope of the College of Agriculture, Food and Environment equine programs. These departments work as a system.

<u>UK Ag Equine Programs Operational Unit Budget Overview:</u>

When focusing on the budget specific to UK Ag Equine Programs, the unit budget is largely comprised of state funding allocated from the College of Agriculture, Food and Environment. This funding is utilized primarily to support faculty and staff salaries paid directly from the program and some additional financial resources for programmatic efforts and overhead.

For fiscal year 2022 (July 1, 2021-June 30, 2022), Equine Programs received \$491,265 in recurring state funds allocated from the College of Agriculture, Food and Environment. Personnel salaries account for approximately 86 percent of expenditures in state funding. The remaining 14 percent is allocated for operational expenses to include communications and public relations, internships and outreach, student and alumni events, faculty and staff professional develop-

ment, core office functions, and part-time instructors and overload pay.

#### UK Ag Equine Programs Budgeted Personnel:

- Erin DesNoyers, Operations Coordinator
- Dr. Camie Heleski, Senior Lecturer
- Savannah Robin, Internship Coordinator
- Dr. Jackie Wahrmund, Lecturer
- Holly Wiemers, Communications and Managing Director
- Kristen Wilson, Academic Coordinator In recent years, efforts have been made to further diversify funding which supports Equine Programs for teaching, research, and extension. In addition to our state account, Equine Programs has several philanthropic/gift accounts and revenue positive income accounts. (appendix focus area 9.a) These additional accounts provide resources for Equine Programs to educate the equine community through extension, conduct innovative equine research, create career and learning opportunities for current students, and offer support for our equine clubs and teams.



Budget Expense Area:	State Fund Allocation:	
Equine Programs personnel	\$424,896	
Office and overhead	\$28,257	
Part-time instructors	\$20,400	
Communications and public relations	\$3,300	
Internships and outreach	\$4,025	
Student and alumni events	\$3,081	
Professional development	\$11,513	

Table 12: State Budget Breakdown and Expenditure Detail. \*Total state budget equals \$495,472, creating a deficit of -\$4,207 due to Equine Programs covering one percent of a merit increase which will be budgeted in fiscal year 2023.

#### Equine Philanthropic Efforts:

Equine Programs works closely with the college's Office of Philanthropy and Alumni to aid in identifying philanthropic opportunities, cultivating relationships and stewardship with donors, and spearheading initiatives for financial giving. Initiatives and goals have been put into place to increase financial stability and foster future giving.

- In 2021, the Student Experience and Applied Education Fund was established to support and provide opportunities for students to gain equine experiences in and out of the classroom. You can read more about this fund <u>here</u>.
- Starting in December of 2020, a biannual appeal to Equine Science and Management graduating seniors, alumni, and friends was created. These appeals are sent in late April

and late November to target alumni and friends to support a graduate and Equine Programs. (appendix focus area 9.b)

- Biannual appeals to the Equine Programs Ad-• visory Board are sent in May and December to support Equine Programs efforts.
- Work with the Equine Programs Advisory Board Philanthropy Subcommittee to develop philanthropic goals to ultimately assist Equine Programs with its mission in teaching, research, and extension.
- Continue to develop scholarship opportunities for equine students.
- Foster relationships with the developing Equine Alumni Affiliate Network and Equine Science and Management alumni community. Graduates of the Equine Science and Management degree program have gone on to accomplish amazing feats in their careers. However, the alumni base is still young and developing successful careers. Equine Programs strives to maintain contact with alumni and relationships to build a foundation for future giving.

- Estate planning has become a recent area of focus as one avenue to give back to the university and Equine Programs.

Maintain relationships with equine industry stakeholders and organizations to provide financial backing for research in areas of equine safety, nutrition, infectious diseases, economics, and much more.

> -Funding was obtained to launch the 2022 Kentucky Equine Survey. You can read more about this survey here.

EQUINE FACILITIES:

Equine Programs utilizes a number of different facilities and classroom spaces, several of which are made possible through collaborations with UK College of Agriculture, Food and Environment academic departments and units. With a growing academic program, classroom space to accommodate students continues to be a challenge.

#### On-campus facilities include:

- Agricultural Science Building North. UK Ag ٠ Equine Programs' office suite is housed in this building on the second floor, suite N-212. One half of the suite has six individual office spaces for each Equine Programs' staff or faculty member, a front reception area, and a conference room. There is the possibility of additional office space on the other half of the suite. Currently, there are vacant offices and others are held by administrative staff for the College. Classrooms and lab space within this building are used for the Equine Science and Management degree program.
- Garrigus Building. This building contains a classroom space in the basement and smaller classrooms on the ground floor. The Department of Animal and Food Sciences conducts teaching, research and extension activities in this building, which also includes office space for several faculty and staff with equine effort.
- Barnhart Building. Home to the Department of Agricultural Economics and Biosystems and Agricultural Engineering, this building contains space for offices, classrooms, and computer labs. The National Thoroughbred Racing Association sponsored Equine Safety Lab is also in this building and is where equine safety and surface research is conducted. You can read more about this laboratory here.
- Gluck Equine Research Center. Some Equine Science and Management courses are taught in the Gluck Auditorium. Additionally, equine research is conducted here, the only institution in the U.S. where all faculty efforts are equine related.



#### Off-campus facilities include:

#### UK Maine Chance Farm

- Also known as "North Farm," a combination of Maine Chance Equine Campus and Spindletop Farm, this education and research cluster is approximately 2,400 acres and houses important equine research in the departments of Animal and Food Sciences and its Animal Sciences Horse Unit, Veterinary Science, Biosystems and Agricultural Engineering and Plant and Soil Sciences.
- Provides a vast array of teaching, research, and extension opportunities for faculty, staff, and students.
- You can read more about the history of Maine Chance Farm <u>here</u>.
- Pirri Teaching Pavilion -

- In 2017, funds were donated from John Pirri Jr. to the College of Agriculture, Food and Environment for facility needs for UK Ag Equine Programs' undergraduate efforts. You can read more about this gift <u>here.</u>

- This teaching pavilion is located on UK's Maine Chance Farm. Several classes and labs are taught in this location, including EQM 105 Equine Behavior and Handling and ASC 320 Equine Management.

- The pavilion features an indoor ring where students can gain hands-on horsemanship skills, and an indoor classroom space.

• Barn 3, one of the original Maine Chance Farm barns, sits adjacent to the Pirri Pavilion and is where horses are stabled. Currently, horses are led from the barn to the pavilion for classes and horses are worked in the arena.

 It would be ideal to add stabling to the Pirri Teaching Pavilion to maximize efficiency and resources for classes so students and horses do not have to walk back and forth between the pavilion and adjacent barn. Additionally, the teaching use can interfere with research that is occurring in the same space/with the same horses at times. An expanded facility will help alleviate this overlap of need.



- Equine Analytical Chemistry Lab. Dr. Scott Stanley, professor in the Department of Veterinary Sciences, provides leadership to this service laboratory. You can read more about this lab and the Equine Biological Passport initiative here.
- University of Kentucky Veterinary Diagnostic Laboratory (UKVDL). Located close to UK's Maine Chance Farm and not far from campus, this veterinary diagnostic service, research, and teaching laboratory is home to faculty and staff who serve as animal health sentinels to Kentucky's livestock industries. To learn more about the UKVDL, click <u>here</u>.

#### Equine Herd Resources:

In addition to physical facilities used to support equine teaching and research efforts, the equine herds located at Maine Chance Farm are another resource for the Equine Science and Management degree program. Horses used for teaching purposes are cared for by faculty and staff through the Department of Animal and Food Sciences. These horses allow for knowledge learned in the classroom to be applied in real-life scenarios to help students gain horsemanship skills and applied horse management practices.

There are also research herds maintained by Veterinary Science on the Spindletop side of North Farm and at the Woodfood Farm, which is the location of geriatric horse research.

The equine herds are an integral component to the Equine Science and Management curriculum and one of the aspects that sets it apart from many programs nationally. As the program continues to grow, resources will be needed to assist with maintaining these herds.



#### LOOKING AHEAD - PRIORITIES AND OPPOR-TUNITIES FOR NEW INVESTMENT:

Equine Programs is continuously seeking ways to be innovative and creative in finding new opportunities for growth and financial diversification. Predictable, stable funding will provide critical support to enable long-term visioning and strategic decision-making to positively impact Kentucky's equine industry. There are also opportunities for new investment, as we work to institutionalize the program, ensure the longterm benefits of teaching and workforce development, and elevate our program for future success.

Prioritize personnel resources and needs

- Creating additional faculty professorships to support teaching for the growing Equine Science and Management degree program is critical
- A strong need to add support staff to assist with programmatic efforts such as advising, recruitment, communications, administrative needs, etc.

#### Student workforce opportunities

- Closing the gap across underrepresented backgrounds by increasing access
- Providing hands-on learning in modern teaching facilities
- Facilitating meaningful internship and co-op experiences
- Creating business-related MS and MBA programs

#### Research investment and industry engagement

- Responding to challenges to equine health and safety as well as threats to equine industry success
- Conducting quality and meaningful research for owners of large and small operations

#### Outreach investment and service opportunities

- Developing workshops and outreach efforts throughout Kentucky
- Creating youth STEM camps centered on equine sciences
- Expanding and enhancing equine agriculture to students in K-12 schools
- Empowering policymakers with accurate data that informs decision-making

#### **XI. REFLECTION**

In places where doubt still lingers, the academic potential that exists through UK Ag Equine Programs should no longer be discussed in hypothetical terms. There are now multiple years of productivity data for assessment. The ESMA undergraduate major is now the largest in the College of Agriculture, Food and Environment and attracts students from across the country at a percentage that is literally the highest of any degree program at the University of Kentucky (campus-wide). Teaching, research, and extension productivity all document a highly successful academic program of national (even international) prominence.

That said, additional, yet still unrealized academic opportunities remain substantial. There is so much more that can be achieved provided enabling resources can be accessed. It is essential, however, to accept and value the foundational structure of an interdepartmental and transdisciplinary unit that works in synergy with other academic departments/units. The implementation strategy must continue to center on communication, collaboration, and the cultivation of an academic community that embraces the potential of equine science and equine agriculture to advance human society.

To this end, programmatic investments of financial and human resources into UK Ag Equine Programs should sustain current high achievement levels while prioritizing new ideas





that motivate collaborations between academic units, foster transdisciplinary efforts, and catalyze synergies across different professions and landgrant missions. Specific suggestions and possibilities include:

- 1. Establish fully funded graduate student teaching assistantships in equine science. These competitive fellowships would fill a critical need for teaching support personnel within the ESMA major, while advancing research productivity and graduate education.
- 2. Establish a new lecturer position to be held by an individual who will also serve as Director of Career Development, supporting the full breadth, scope, and multidisciplinary potential of equine science associated career paths.
- 3. Organize financial resources to encourage the recruitment of new faculty members in collaboration with academic departments. Equine Science term professorships are envisioned that will provide approximately 30% support for each new faculty line.
- Support the creation of a new extension associate position, the successful candidate for which will help to facilitate equine-related collaboration across land grant extension, research, and teaching missions.
- 5. Help academic departments with financial costs associated with maintaining horses, personnel costs associated with the ESMA major, and equine-related infrastructure.
- 6. Advance infrastructure investments that support equine science productivity and foster shared facility utilization and collaboration across land grant research, extension, and teaching missions.
- 7. Expand youth programs, including STEM-centered educational summer horse camps that concurrently provide new academic opportunities within the ESMA major and will support undergraduate student recruitment as grade school participants reach college age.
- 8. Support the ESMA alumni community, while also extending participation opportunities to any University of Kentucky alumni with equine related interests.

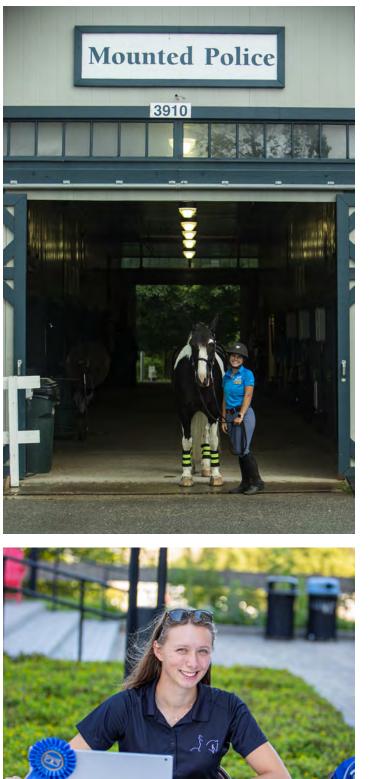
- Facilitate collaborative academic programs with colleges across the University of Kentucky campus including Medicine, Health Sciences, Public Health, Honors, Business, Law, Engineering, Pharmacy, and others. Multiple opportunities exist for joint educational programs and collaborative research initiatives.
- 10. Continue to support and implement quality initiatives that address diversity, equity, and inclusion challenges and opportunities across all areas of UK Ag Equine Programs.
- 11. Enhance discretionary financial resources for investment in extension and research programs related to equine science.
- 12. Establish financial resources to cover administrative stipends paid to faculty members who serve as the Director of Equine Programs and the Director of Undergraduate Studies for the ESMA major, as well as departmental costs associated with the temporary re-alignment of faculty effort distributions.

UK Ag Equine Programs does not have administrative "sticks" to affect the goals and objectives associated with advancing equine-related academic productivity. However, this can and should be viewed in a positive light. All efforts can center on "carrots" and functioning as a substantive, valued, and reliable "part of the solution for all things equine" both within the University of Kentucky and externally with alumni, industry stakeholders, and the public broadly.



















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r mancial Accounts	Focus Area 9.a

#### University of Kentucky Equine Programs Strategic Plan 2016-2021

#### Introduction

The University of Kentucky's Ag Equine Program has exhibited dramatic growth in research and education since its inception in 2005. Strong, committed leadership and faculty engagement has been the model for the program with a vision for the future since the implementation of the last Strategic Plan.

As the Equine Program transitions its organizational structure, continues to expand student enrollment and delivers quality program offerings, this 2016-2021 Strategic Plan charts the course for a new vision and action plan for continued success over the next five years.

#### **OUR VISION AND STRATEGIC OBJECTIVES**

#### STRATEGIC VISION

University of Kentucky's Ag Equine Programs will be recognized worldwide for its portfolio of educational and research excellence in all things related to equine.

#### STRATEGIC OBJECTIVES

#### 1. Enhanced Communications

Enhance and focus communications to increase positive brand awareness. Ultimately, the connection made by the public and industry groups is equine/education = University of Kentucky (UK)/ College of Agriculture, Food and Environment (CAFE) /Equine Programs (EP).

#### 2. <u>Research Excellence</u>

Build a research base of excellence to support the growth and development of equine sciences.

#### 3. Equine Science and Management Program Performance

Establish measures for the Equine Science and Management (ESMA) program performance to assure a quality academic program that leads to professional careers reflective of ESMA students' interests.

#### 4. Outreach and Community Engagement

Build creative, beneficial and functional relations with partners in the equine industry.

#### 5. Equine Programs' Infrastructure and Capacity

Strengthen organizational capacity and infrastructure of EP to fulfill its mission and vision.

#### Strategic Objective 1: Enhanced Communications

Enhance and focus communications to increase positive brand awareness. Ultimately, the desired outcome is public and industry awareness that the University of Kentucky, College of Agriculture, Food and Environment, Ag Equine Programs is the first choice in equine research and education.

#### **Strategic Initiatives and Action Steps**

Strategic Initiative 1: Conduct market research through a brand perception study of UK Ag Equine Programs and use the relevant and applicable information to establish a current brand perception baseline.

<u>Action Step 1</u>: Utilize an undergraduate class within the College, as a student learning opportunity to conduct research in-house on the following eight stakeholder groups:

- Legislative, donors/prospective donors, media
- Recreational riders and horse owners
- Health and research (veterinarians, equine pharma and academic researchers)
- Current students (graduate and undergraduate)
- Alumni
- Prospective students and prospective students' parents
- Professional equine industry
- Internal stakeholders

Action Step 2: Conduct an internal communications audit of EP's current brand messaging.

<u>Action Step 3</u>: In five years, re-measure with a goal of increasing brand awareness and positive brand perception by 5%.

# Strategic Initiative 2: Establish consistency of branding across all Equine Programs (logos, templates, naming), starting with Equine Programs Office and extending to all programs under EP umbrella within the five years of this plan.

<u>Action Step 1</u>: Implement new UK logo across EP materials with online, social, printed and soft goods as those materials phase out.

Action Step 2: Communicate guidelines and provide tools to our organization.

<u>Action Step 3</u>: Implement consistency in branding the EP in its entirety and provide training sessions (in person and web based).

Strategic Initiative 3: Develop a comprehensive two-year marketing communications plan using the applicable market research gathered in the AEC320 class and building on the program's communications efforts across existing channels while identifying new channels and channels needing improvement.

<u>Action Step 1</u>: Develop and implement powerful stories about the program to build or reinforce awareness and positive perceptions about the breadth and depth of EP.

<u>Action Step 2:</u> Utilize existing tools, including events, sponsorships, partnerships, newsletters (Bluegrass Equine Digest, Equine Disease Quarterly and Wildcat Canter), website, Facebook and Twitter, to better identify and use existing information and cross purpose among all channels.

<u>Action Step 3:</u> Significantly enhance social media efforts (frequency and engagement) on existing social media channels and through new channels (LinkedIn and Instagram, etc.).

<u>Action Step 4:</u> Significantly increase types of stories told over multiple channels (videos, photos, stories, spotlights (like horses and humans of UK, etc.) and utilize newer tools (hashtags, etc.) as well.

<u>Action Step 5:</u> Empower and utilize student and program ambassadors (possibly named Outriders or similar) to carry the brand message through social media takeovers, hash tags for hash tracking, blogs, events, etc. Consider creating a contest, and specific hash tag for each incoming class to track the engagement garnered.

<u>Action Step 6:</u> Establish EP annual awards to recognize significant accomplishments by faculty, staff and students. Include recognition for publication of theses, dissertations, journal articles, books, in an effort to nurture a culture of sharing accomplishments.

Action Step 7: Refine the branding of Bluegrass Equine Digest to strengthen identity with EP.

#### Strategic Initiative 4: Continue and enhance stakeholder and industry outreach/relations.

<u>Action Step 1</u>: Maximize networking relationships with industry leaders, horse owners, organizations and other higher education institutions through interface and/or participation on boards and professional services where appropriate.

<u>Action Step 2</u>: Be intentional in participating in external events to maximize the return on brand investment.

<u>Action Step 3:</u> Increase the engagement of EP faculty and staff with state and national industry organizations.

<u>Action Step 4:</u> Increase awareness of the breadth of EP programs in all breeds and disciplines as well as with equine farms of all sizes by identifying and delivering needed information in user-friendly forms (e.g., Bluegrass Equine Digest, Equine calendar, horseman's pocket guide).

<u>Action Step 5:</u> Advance public outreach activities such as Breeders Short Course, Research Showcase, Bluegrass Equine Digest, VDL seminars as well as developing new and updating

existing online informational materials; continue support for partnerships including Kentucky Equine Networking Association (KENA) and Saddle Up Safely (SUS).

<u>Action Step 6:</u> Bring awareness about EP being a valuable equine resource outside of Central Kentucky.

<u>Action Step 7:</u> Develop communications to bring awareness to UK AG Extension as a tremendous resource for horse owners and the equine industry.

#### Strategic Objective 2: Research Excellence

#### Build a research base of excellence for growth and development of equine sciences.

#### **Strategic Initiatives and Action Steps**

### Strategic Initiative 1: Identify and focus programs across multiple interest areas related to the equine industry.

<u>Action Step 1</u>: Continue general interest CAFE Equine Forum meetings as a vehicle for connecting faculty with shared interests, with an intentional balance of internal/external guests, teaching/research/extension topics, and brainstorming opportunities.

Action Step 2: Generate a list of all current EP Affiliated academic institutions.

Action Step 3: Determine the preferred criteria for additional academic institutional Affiliates.

<u>Action Step 4</u>: Seek out relationships with other academic institutions that connect EP Affiliates with interns and/or collaborative research opportunities.

### Strategic Initiative 2: Increase the resources available to support research and development efforts related to the equine industry.

Action Step 1: Appoint an Equine Research Coordinator (ERC).

<u>Action Step 2</u>: Establish compelling stories about the difference that UK EP research has made in the Equine Industry throughout the world in order to cultivate funding for areas of research into the future.

<u>Action Step 3</u>: Develop a list of projects/ideas that need seed or bridge funding specifically within EP and establish a source or sources for funding.

Action Step 4: Identify source(s) to provide bridge funding for new EP research initiatives.

<u>Action Step 5</u>: Create and maintain a web-based list of public and private granting opportunities for equine related research that includes program descriptions, deadlines, funding ranges, and links to programs.

<u>Action Step 6</u>: Create and maintain a current and historical listing of equine related research projects and graduate fellowships that will be available to document research output for internal and external audiences.

### Strategic Initiative 3: Nurture multidisciplinary, multi-institutional and public/private relationships that connect UK EP to opportunities for collaborative research.

<u>Action Step 1</u>: Develop a strategy to create a funding base that will allow seed-funding of multidisciplinary research projects with other colleges to connect non-equine and equine research issues.

Action Step 2: Highlight collaborative programs/projects during annual celebrations.

<u>Action Step 3</u>: Host the Equine Summit as an annual event to engage stakeholders in identifying research needs and opportunities.

### Strategic Initiative 4: Support increased graduate student participation in research and other EP activities.

<u>Action Step 1</u>: Develop a mechanism to increase the current number of recruited graduate students within participating departments of the EP.

<u>Action Step 2</u>: Develop new sources of funding to support graduate student research and stipends.

<u>Action Step 3:</u> Explore opportunities for graduate students to serve as ESMA TA's or to have some mechanism for having a teaching experience.

<u>Action Step 4</u>: Develop a mechanism to research and establish history of graduate students' accomplishments to date. Continue to maintain this with current and future GA's.

<u>Action Step 5</u>: Host graduate student research seminars that encourage graduate students to interact and communicate on their research interests.

<u>Action Step 6</u>: Encourage graduate student participation in professional meetings by supporting the printing of posters.

Action Step 7: Host a graduate student EP showcase with awards for best presentations.

<u>Action Step 8:</u> Involve graduate students in annual 'Seed Grant Fund Feedback Symposia', where oral and poster presentations are made in front of current and future donors.

#### Strategic Objective 3: Equine Science and Management Program Performance

Establish measures for the Equine Science and Management (ESMA) program performance to assure a quality academic program that leads to professional careers reflective of ESMA students' interests.

#### **Strategic Initiatives and Action Steps**

Strategic Initiative 1: Monitor the career preparation and skills needed of ESMA students.

<u>Action Step 1</u>: Periodically review the internship evaluation data base to define and track changes in industry professional expectations.

<u>Action Step 2</u>: Conduct a biennial survey of alumni to assess their sense of their career preparation.

<u>Action Step 3</u>: Conduct a periodic survey of employers of EP graduates to gain their assessment of student work force readiness.

<u>Action Step 4</u>: Conduct Graduate Exit Survey annually in conjunction with the Academic Programs office at the end of every semester (Fall, Spring, and Summer).

### Strategic Initiative 2: Open opportunities for ESMA students to broaden their professional development through research and new study opportunities.

<u>Action Step 1:</u> Offer diverse equine-related educational experiences – internships, jobs, and study abroad opportunities - for students to participate in.

Action Step 2: Establish a system to link students interested in equine research with faculty.

<u>Action Step 3</u>: Review current list of Specialty Support courses. Establish agreements with other colleges at the University of Kentucky, as needed, to provide more specialized courses that reflect the diverse career interests of ESMA students.

<u>Action Step 4</u>: Explore opportunities for graduate students to serve as TAs for courses in CAFÉ.

Action Step 5: Establish a regularly recurring study abroad program for ESMA students.

### Strategic Initiative 3: Increase the number and diversity of initiatives to support retention and successful completion of ESMA undergraduate degrees.

<u>Action Step 1:</u> Design a strategy to insure that ESMA will have sufficient resources to move students through all required courses as planned.

Action Step 2: Establish peer mentors for UG students within the ESMA program.

<u>Action Step 3</u>: Partner with the CAFE alumni mentor program for ESMA undergraduate students, to increase ESMA alumni participation and involvement.

<u>Action Step 4</u>: Evaluate the costs and benefits, pros and cons, of establishing an undergraduate minor in ESMA.

<u>Action Step 5</u>: Evaluate the costs and benefits, pros and cons, of establishing a certificate program in equine assisted activities.

#### Strategic Objective 4: Outreach and Community Engagement

#### Build creative, beneficial and functional relations with partners in the industry.

### *Strategic Initiative 1:* Forge new and nurture existing partnerships in support of mutually beneficial outcomes of value to the current and future industry.

Action Step 1: Identify all current partners and stratify them into categories.

Action Step 2: Determine strategies to strengthen existing partnerships.

Action Step 3: Identify potential new partnerships that will be beneficial to EP goals.

<u>Action Step 4:</u> Involve horse owners and representatives of equine-related businesses in designing, implementing, and evaluating EP programs and initiatives.

<u>Action Step 5</u>: Support participation by recreational riders and horsemen on existing CAFE advisory boards (e.g., Gluck, VDL, Dean's Equine Advisory Committee).

#### Strategic Initiative 2: Increase outreach programs and research experiences that focus on the needs of current and future horse enthusiasts and encourage continued growth and relationship.

<u>Action Step 1</u>: Increase outreach programs and research oriented experiences that are focused on the needs and interests of youths to cultivate this generation of horse enthusiasts.

<u>Action Step 2</u>: Increase research and outreach programs focused on the needs and interests of horse owners.

<u>Action Step 3</u>: Explore joining forces with Horse Country Tours, Inc. to market and highlight the outstanding educational, research and historical aspects of the EP.

<u>Action Step 4</u>: Every 10 years conduct a horseman's survey, inclusive of a section related to knowledge of the UK Ag Equine Program.

Action Step 5: Offer specialized field days outside of Central Kentucky.

### Strategic Initiative 3: Expand the expertise of those who deliver equine educational outreach programs.

<u>Action Step 1</u>: Offer professional development educational programs for Extension agents as part of ANR and 4-H staff development.

<u>Action Step 2</u>: Increase Extension agents' availability to virtual professional development training and educational programming.

#### Strategic Objective 5: Equine Programs' Infrastructure and Capacity

#### Strengthen organizational capacity and infrastructure of EP to fulfill its mission and vision

### Strategic Initiative 1: Determine appropriate organizational model and identify and hire necessary leadership

<u>Action Step 1</u>: Evaluate various organizational models for EP leadership and select the one that best accomplishes the EP's vision for global prominence.

Action Step 2: Develop an interim leadership plan until new leadership is hired.

Action Step 3: Establish a transition process for the leadership position(s).

Action Step 4: Define and assign responsibilities to EP leadership positions.

<u>Action Step 5</u>: Determine and assign priorities to the skills, knowledge and experience required to effectively fulfill these responsibilities.

Action Step 6: Prepare and market job description(s) for all new EP leadership positions.

<u>Action Step 7</u>: Identify roles and responsibilities for various EP leadership positions: EP faculty director, EP managing director, EP research coordinator, EP development position.

### Strategic Initiative 2: Evaluate other personnel needs and develop a plan to complete personnel requirements.

<u>Action Step 1:</u> Coordinate with departments to encourage and support the idea that EP engaged faculty positions continue to focus on equine interests in the recruitment process.

<u>Action Step 2</u>: Evaluate personnel needs and plan for changes as vision and goals are redefined.

Action Step 3: Address, identify, and communicate funding needed for personnel.

### Strategic Initiative 3: Provide the facilities essential for moving the EP mission forward through strengthening the necessary infrastructure.

<u>Action Step 1</u>: Develop plans for an educational complex with a place to have animals for hands-on instruction, classroom, wet lab and meeting space, etc. (Explore an extension of the Gluck Center (has been mentioned for this)).

Action Step 2: Ensure sufficient office space for EP faculty and professional staff.

<u>Action Step 3</u>: Ensure sufficient lab space to support research by EP faculty and grad students.

Action Step 4: Ensure sufficient space to support outreach and youth activities.

<u>Action Step 5</u>: Build ADA-compliant restroom facilities in the teaching pavilion at Maine Chance Farm.

### Strategic Initiative 4: Increase the capacity for fund raising and development efforts specific to the EP.

Action Step 1: Hire a full-time equine-related development position.

Action Step 2: Increase efforts to generate needed resources.

Action Step 3: Establish an endowment to support EP goals.

<u>Action Step 4</u>: Strengthen the marketing of EP to funding decision-makers (state legislators, corporate foundations) on the return on a dollar invested in EP.

<u>Action Step 5</u>: Where relevant, EP affiliates develop a one-page story on a priority funding need from their perspective inclusive of. the potential impact if funded.

### Strategic Initiative 5: Nurture communication, interaction, and collaboration between geographically-dispersed EP Affiliates.

<u>Action Step 1:</u> Offer monthly Equine Forum meetings.

<u>Action Step 2:</u> Evaluate structure and term limits of EP Council and Advisory Committee needed to best support sustained growth of program.

Action Step 3: Establish a central meeting space for equine-related activities.

# Kentucky.

### **Equine Science and Management**

The horse industry is a dynamic industry that encompasses not only the breeding, raising and training of horses but also the development of activities for the use of the horse in sports and recreation. The industry has a significant economic impact across the U.S. and world-wide.

Equine science and management involves the study and application of science and business concepts to the horse industry. Additional course work supports learning in areas that aid in breeding and raising horses and marketing the industry. Students come from varied equine backgrounds but have a common interest in the horse. Regardless of which breed of horse or activity focus students have, equine science and management majors will have the opportunity to combine their interest in the horse with a desire to become active participants in the horse industry.

Students in equine science and management considering a career in veterinary medicine or graduate research can meet those goals in the degree program as well. Interested students need to consult with an advisor to ensure all specific academic requirements are met.

#### **Career Opportunities**

The horse industry is continually changing. Equine science and management graduates are needed in all aspects of the industry including production, business management and other related support industries.

#### **Graduation Requirements**

To earn the Bachelor of Science in Equine Science and Management, the student must have a minimum of 120 credit hours with at least a 2.0 grade-point average. A minimum of 45 credit hours must be from upper division courses (300 level and above). Remedial courses may not be counted toward the total hours required for the degree.

Students must complete the following:

#### **UK Core Requirements**

See the UK Core section of the 2021-2022 Undergraduate Bulletin for the complete UK Core requirements. The courses listed below are (a) recommended by the college, or (b) required courses that also fulfill UK Core areas. Students should work closely with their advisor to complete the UK Core requirements.

I. Intellectual Inquiry in Arts and Creativity Choose one course from approved list
II. Intellectual Inquiry in the Humanities           Choose one course from approved list
III. Intellectual Inquiry in the Social Sciences           Choose one course from approved list
IV. Intellectual Inquiry in the Natural, Physical, and Mathematical Sciences Choose course(s) from approved list
V. Composition and Communication I CIS/WRD 110 Composition and Communication I
VI. Composition and Communication II CIS/WRD 111 Composition and Communication II

#### **College of Agriculture**, **Food and Environment**

VII. Quantitative Foundations MA 109 College Algebra or
MA 123 Elementary Calculus and Its Applications
MA 113 Calculus I
VIII. Statistical Inferential Reasoning STA 210 Making Sense of Uncertainty: An Introduction to Statistical Reasoning or STA 296 Statistical Methods and Motivations
IX. Community, Culture and Citizenship in the USA GEN 100 Issues in Agriculture, Food and Environment
X. Global Dynamics
Choose one course from approved list
UK Core hours
Graduation Composition and Communication Requirement (GCCR)
EQM 305 Equine Industry Issues
Graduation Composition and Communication Requirement hours (GCCR)
Premajor Requirements BIO 148 Introductory Biology I
CHE 105 General College Chemistry I CHE 107 General College Chemistry II CHE 111 General Chemistry I Laboratory CHE 113 General Chemistry II Laboratory
OR CHE 104 Introductory General Chemistry CHE 108 Introduction to Inorganic, Organic and Biochemistry without Laboratory
OR CHE 105 General College Chemistry I CHE 108 Introduction to Inorganic, Organic and Biochemistry without Laboratory7
ECO 201 Principles of Economics I
MA 109 College Algebra or
MA 123 Elementary Calculus and Its Applications or
MA 113 Calculus I
Subtotal: Premaior hours 18-23

#### - CONTINUED -

University of Kentucky is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award associate, baccalaureate, masters, and doctorate degrees. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097, call 404-679-4500, or online at www.sacscoc.org for questions about the accreditation of University of Kentucky.

### **Equine Science and Management • 2**

#### Major Requirements

ASC 101 Domestic Animal Biology	3
EQM 101 Introduction to the Horse and the Horse Industry	3
EQM 105 Equine Behavior and Handling	2
EQM 106 Introduction to Careers in the Equine Industry	1
ASC 310 Equine Anatomy	3
ASC 320 Equine Management	3
EQM 305 Equine Industry Issues	3
EQM 351 Equine Health and Diseases	3
EQM 399 Equine Science and Management Internship	
or	
EQM 396 Equine Study Abroad (Subtitle required)	3
EQM 490 Capstone in Equine Science and Management	3
AEC 302 Agricultural Management Principles	
Subtotal: Major hours	

#### **Emphasis Areas**

Students must have one emphasis area. In order to have an emphasis area, students must take 12 credits in one area. Students will then select 9 additional credits from any emphasis area. 21 credit hours in emphasis area courses must be completed.

#### **Equine Science**

This area will provide the students with a strong background in basic sciences which will prepare them for graduate school or careers such as laboratory research assistants, breeding technicians, pharmaceutical sales representatives, and technical representatives for the feed industry.

ASC 220 Applied Animal Behavior and Welfare	
ASC 311 Advanced Equine Evaluation1	
ASC 325 Animal Physiology	
ASC 364 Reproductive Physiology of Farm Animals4	
ASC 378 Animal Nutrition and Feeding	
ASC 380 Applied Animal Nutrition	
ASC 389 Advanced Equine Nutrition and Feeding2	
ASC 410G Equine Science	
EQM 300 Topics in Equine Science and Management 1-6	
PLS 366 Fundamentals of Soil Science	
PLS 510 Forage Management and Utilization	
VS 307 Genetics of Horses	
VS 500 Advanced Equine Reproduction	
VS 507 Advanced Horse Genetics2	
Subtotal: Emphasis hours	

#### **Equine Management and Industry**

Students will learn skills related to marketing, operations, and management of equine businesses. This will prepare students for careers as farm managers as well as business managers for equine enterprises, breed associations, and sales associates. This area also introduces them to the diversity of the equine industry through courses in equine law, sales, careers, event planning, marketing, and human resources.

AEC 305 Food and Agricultural Marketing Principles
AEC 320 Agricultural Product Marketing and Sales or
MKT 300 Marketing Management
AEC 324 Agricultural Law
AEC 325 Equine Law
AEC 340 Human Resource Management in Agriculture
EQM 210 Tools and Tack in the Equine Industry
EQM 300 Topics in Equine Science and Management1-6
EQM 301 Thoroughbred Sales
EQM 340 Equine Facility Design and Management
Subtotal: Emphasis hours

#### **Communications and Leadership**

Students who are interested in leadership roles in business, breed associations or nonprofit equine organizations and cooperative extension should consider this area. They will enhance their communication skills and be required to take courses in community dynamics, leadership development, and agriculture communication.

CLD 102 The Dynamics of Rural Social Life
CLD 230 Intrapersonal Leadership
CLD 260 Community Portraits
CLD 320 Community and Communication: Exploring Their Intersections
CLD 400 Agricultural Communications Campaigns
CLD 401 Principles of Cooperative Extension
CLD 402 Principles of Leadership
CLD 403 Leadership and Communication
CLD 404 Contemporary Leadership Applications
CLD 430 Leading in Communities: Vision, Action, and Change
CLD 495 Topical Seminar in Community and
Leadership Development (Subtitle required)1-3
CLD 530 Fundamentals of Organizational Leadership
EQM 300 Topics in Equine Science and Management1-6
EQM 302 Equine Event Planning1
Subtotal: Emphasis hours

#### **Specialty Support Requirement**

The student will choose, in consultation with an advisor, at least 18 hours of courses at the 200 level or above that will strengthen the program in an area of importance to the student. To aid in developing this area of study, a list of suggested courses is available from your advisor. The list includes courses in agricultural economics, animal sciences, community and leadership development, marketing, management, finance, plant and soil sciences plus other areas of study at UK.

#### 

#### Electives

Electives should be selected by the student to lead to the minimum total of 120 hours required for graduation

Subtotal: Electives	minimum of 3
Total Minimum Hours for Program	

#### **Equine Science and Management Student Learning Outcomes**

- 1. Students will define, analyze and articulate their knowledge of equine science and management content.
  - A. Students will define and analyze industry terms, practices, and topics at various levels.
  - B. Students will demonstrate and evaluate equine handling skills and production management practices.
  - C. Students will construct a summative project that draws on current research, scholarship and techniques in the equine industry.
- 2. Students will apply their knowledge by synthesizing local, national and/or global issues within the equine industry.
- 3. Students will communicate effectively and professionally through written, oral and visual modes of communication. (GCCR)
  - A. Students will construct a variety of communication pieces to articulate topics within the equine industry.
  - B. Students will construct a variety of professionalism pieces to help prepare them for future careers.
  - C. Students will present equine and professionalism topics through various oral communication methods.
- 4. Students will execute scientifically informed and ethical decisions by utilizing critical thinking, analytical reasoning and/or problem-solving skills.
- 5. Students will work effectively in diverse environments as an individual or as a collaborative team.

SLO	Student Learning Outcome Connected to Essential Employability Skill
#	Qualities (EEQs)
1	Students will define, analyze and articulate their knowledge of equine science and management content.
	EEQs: Learners, Thinkers and Problem Solvers
2	Students will apply their knowledge by synthesizing local, national and/or global issues within the equine industry.
	EEQs: Thinkers and Problem Solvers Adaptable
3	Students will communicate effectively and professionally through written, oral and visual modes of communication. (GCCR)
	EEQs: Communication, Responsible and Professional
4	Students will execute scientifically informed and ethical decisions by utilizing critical thinking, analytical reasoning and/or problem-solving skills.
	EEQs: Principled and Ethical Inquirers
5	Students will work effectively in diverse environments as an individual or as a collaborative team.
	EEQs: Collaborators Adaptable

# When it comes to career readiness... Appendix Core Area 2.c OUN EQUINE STUDIES STUDIE

Employability skills are essential to being prepared for both initial and long-term professional success. Built on a strong foundation of knowledge in equine science and core subjects, our curriculum actively develops the following essential employability skills that enable students to reach career goals and achieve their full potential.

## Communication

- Connect with industry leaders through mock interviews in courses
- Development and creation of e-portfolio
- Variety of presentations (inside and outside the classroom)
- Article and blog post writing
- Equine education abroad experiences



Principled

- Evaluation of contentious topics within the equine industry
- Equine industry ethics analysis
- Workplace ethics case studies and explorations



# Inquiry

- Personality and strengths finding reflections in sequential courses
- Extensive undergraduate research opportunities within agricultural economics, veterinary sciences, animal sciences, behavior, biosystems and agricultural engineering and more

Problem Solving

- Hands-on equine labs and lab practical examinations
- Case study analysis in multiple content areas Scientific research report papers and analysis
- Issue analysis and project development for internship site

## Professionalism

- Equine industry exploration and job shadowing requirements
- Professional growth planning
- Resume and cover letter
- Linked-In and social media training
- Wildcat Wrangler student ambassador program

Learning

- Explore the local equine industry in and outside of classes
- Weekly email communications highlighting jobs, internships, volunteering and professional development opportunities
- Industry professionals and alumni guest speakers





Teamwork

Development of internship cohort Group and team projects integrated int coursework Peer mentor and teaching assistant opportunities Nine equine-related clubs and teams



- On farm and hands-on equine lab experiences with our herd of 150+ horses
- Diverse study abroad experiences
- Internship supervisor assessment of adaptability across working conditions





Ag Equine Programs College of Agriculture, Food and Environment

## **Certification Executive Summary**

## University of Kentucky Equine Science

This verbiage will go into a formal document, with pictures submitted by the program.

#### **Program Overview**

University of Kentucky's Ag Equine Programs, formerly the Equine Initiative, is a framework that encompasses everything equine in UK's College of Agriculture, Food and Environment. The Equine Initiative was launched in 2005 when the College of Agriculture, Food and Environment set out to radically change how it served Kentucky's signature equine industry and provide a suite of services appropriate for a land-grant university.

The mission of the program is to discover, share and apply new knowledge on the health, performance and management of horses, enhancing the signature status of Kentucky's equine industry.

#### Strengths & Noteworthy Practices

Students have multiple opportunities to apply learning in work-relevant contexts. Assignments like internships, study abroad, and the ASC 320 laboratory practical exam are some examples of effective assignments that develop and assess students' ability to apply what they have learned in work-related contexts.

150-hour internships, as well as internships students complete outside of curricular requirements prepare students for work in the equine industry. In addition to the internships, there are numerous other interactions with employers such as the job-shadowing assignment, attending industry events, and hosting guest speakers.

The Workforce Summit and Advisory Committee enable strong engagements with employers. Feedback from the 2017 Workforce Summit was effectively used to confirm that planned curricular changes were designed to better prepare students for employment after graduation.

The program maintains strong engagement with alumni through a formal structure and program events. Alumni involvement is strong through periodic requests for alumni updates, advisor contact, social media engagements, alumni involvement in undergraduate events, and alumni guest lecturers. The Equine Affiliate Network is a promising approach to formalizing alumni involvement and feedback. The Wildcat Wranglers program provides an effective means of obtaining feedback from a diverse group of students.



the **QA** commons

THE QUALITY ASSURANCE COMMONS for HIGHER and POSTSECONDARY EDUCATION

April 9, 2020

Kristen Wilson Equine Science University of Kentucky Lexington, KY 40506

Dear Ms. Wilson,

I am pleased to confirm that the Equine Science program has been granted Essential Employability Qualities Certification (EEQ CERT) effective April 1, 2020, for a period of three years. Congratulations on this achievement and for being one of the first programs to achieve this certification.

Attached is a copy of the feedback report prepared by our two external reviewers and approved by the QA Commons Decision Committee. If you wish to provide any response to the report, please do so by May 1, 2020. Any response will be maintained with the feedback report in our files.

Also attached is a draft of the Executive Summary that will be posted publicly along with notification of your certification on the QA Commons website. Please provide any proposed amendments to the draft Executive Summary also by May 1, 2020. We will review any proposed change and determine whether to accept them.

The EEQ Certification is valid until March 31, 2023. The program is requested to submit an interim report by September 30, 2021. The format for this report will be provided to you no later than January 1, 2021. A Certification Renewal Report will need to be submitted by January 15, 2023. The format for the renewal report will be provided to you in advance. Please consider the areas for improvement found in the feedback report in order to respond to them as part of your certification renewal.

We will be issuing a press release on your program's certification. Given all the work being done to address the COVID-19 pandemic, we will likely delay the notice for a few weeks. We would like to work with the University of Kentucky's public relations office to collaborate on distribution. In addition, in our effort to learn about the value of the process and ways to improve it, we will be sending you a survey which we encourage you to complete with your candid reflections and recommendations.

Please find the attached EEQ CERT logo for use on your program website and materials. (The logo is provided in both JPG and PNG formats.) Below is a statement that you may use to represent your EEQ Certification.

Essential Employability Qualities Certification (EEQ CERT) is granted by The Quality Assurance Commons for Postsecondary Education after a rigorous process of external and independent review.

EEQ Certified programs foster a distinctive set of attributes in their graduates. These qualities are intended to prepare graduates to make important contributions in their workplaces. The eight Essential Employability Qualities are communication, thinking and problem solving, inquiry, collaboration, adaptability, principles and ethics, responsibility and professionalism, and learning.

Programs participating in EEQ CERT are scored on five categories that represent a comprehensive and integrated framework for employability - Graduate EEQ Preparation, Career Support Services, Employer Engagement, Student and Alumni Engagement, and Public Information.

To assist us in communicating about your Certification, we would appreciate your providing us with:

- Four photos for use along with our posting of your Executive Summary (Three will be used.)
- A list of people/organizations to which we could jointly send a letter announcing EEQ Certification and explaining what it means. This could include employers, state workforce boards, key alumni, etc.
- A possible quote about the value and meaning of the certification to accompany the certification.

We appreciate the time and effort you and your colleagues have put into ensuring your students are prepared for success in the rapidly changing world of work. Again, congratulations.

Sincerely,

Ralph Wolff President & Founder The Quality Assurance Commons

CC: Dr. Eli Capilouto Dr. David Blackwell Dr. Aaron Thompson Dr. Janna Vice



1 of 54

#### **EEQ CERT Portfolio Submission V.2**

**UKY Equine Science** 

#### Introduction & Guidelines

Programs seeking certification by the Quality Assurance Commons are to submit information and data using this form. **Please read through ALL of the below information**, as it will be helpful as you complete the portfolio submission. Please direct any/all questions to **eeqcert@theqacommons.org**.

We look forward to receiving your portfolio!

#### **Information and Context**

Programs are encouraged to provide a brief contextual statement for each category (and subcategory) as an introduction and orientation for the evaluator's consideration. The context statement should be used to explain how the attached documents or links address the specific sub-category and refer to the specific section that does so.

The Portfolio evaluation will be based solely on the evidence that the program submits through this submission form. **Only** information or evidence that is included in the links will be considered; evaluators are not expected to seek out other information. Evaluators will determine to what extent the evidence is sufficient and at what level the evidence documents that the program meets the category or subcategory.

#### **Quality of Evidence**

Programs should carefully consider the quality of evidence submitted, as this aids evaluators in making a correct determination of the sufficiency of the category. Characteristics of quality include the following.

- Clear relationship between the evidence offered and the case that the evidence is intended to support.
- Evidence of validity and reliability or equivalent professional standards of measures used and / or other data collected.
- Use of multiple sources and ability to triangulate.
- Evidence provided is clearly identified as to the audience it is addressed academic, employer, or lay, and the sources of that evidence are clearly identified.
- Evidence is drawn from reports that are available to and vetted by the program, including assessment reports, program reviews, and programmatic accreditation self-studies and team reports, among others.
- Where evidence is made available to the public, that evidence should be easily located and within a very few clicks from the main home page of the program website.

#### **Guidelines for Completion**

- There is space to provide contextual statements for each of the subcategories (Category 2 has only one, since there are no subcategories). These sections allow you the opportunity to clarify evidence or provide other description that supports how the program meets the subcategory. There is a maximum of 300 words allowed for each subcategory. The only exception is Subcategory 1.A.3, which allows a maximum of 500 words, since there is only one contextual statement to describe information regarding the eight EEQs. There is no requirement to use all of the words; provide only the information that will be most helpful for reviewers.
- For each of the subcategories where evidence is request, there should be a maximum of five (5) pieces of evidence. It is not necessary to provide all five unless doing so will be most helpful to reviewers.
- Programs should pull from across the curriculum, sample courses that most strongly demonstrate satisfying an EEQ.
   Programs may use and map to *General Education outcomes*. However, Gen Ed should be used ONLY if it is a key indicator and satisfies the work-related requirement.

#### Navigation

In the portfolio submission instrument, portfolio questions are on the left. The navigation menu is on the right.

Note that subcategory 1.A.1 is, by far, the longest section to be completed. 1.A.3 is the next longest. The rest of the sections are significantly shorter.

Some questions are "required," while others are optional (such as evidence uploads). When you view the "percentage complete" numbers for each section, it is based on only required sections. Do make sure that all optional questions (especially evidence uploads) you would like to submit are complete.

#### **Uploading Evidence**

For some questions, there is an easy-to-see space for uploading evidentiary documents. *There are a number of questions that do not specifically ask for documents, but that will allow you to upload supporting documents. To do this, simply click on the question title (in bold). You will then see, on the right side of the screen, an option to upload a document.* 

When evidence/documentation is uploaded, programs may use the "comment" feature to direct reviewers to the appropriate section of the document (e.g. "See page 5, paragraph 2.")

There are some questions that do not allow for documents to be uploaded (for instance, those in the Program Information section).

# Graduate Preparation

**Worth 40% of the final score** for EEQ Certification, Category 1 addresses graduates' preparation in regard to the Essential Employability Qualities (EEQs). This category also addresses how the program (or institution) provides work-relevant learning opportunities as well as documentation of graduates' achievement of the EEQs.

The **EEQ Graduate Profile**, found in the document library, describes these specific graduate qualities. (*To get to the document library, go to the home page. From there, go to Documents > Shared.*)

1.A.1 Program addresses and develops each of the EEQs

#### 1.A.1 The program addresses and develops each of the Essential Employability Qualities.

*Evidence Summary*: The charts below should be used to describe the programmatic framework for assessing employability outcomes and the evidence that supports it. Programs can use a variety of frameworks; however, it should be clearly presented how the programmatic frameworks map to the 8 EEQs. The evidence should address where and how the program learning outcomes and learning activities are aligned to the EEQ Graduate Profile. The program should also identify any gaps in assessing the EEQs. Focus your alignment on outcomes, applied learning activities, and assessments that are situated in *work-relevant contexts*. These are real or simulated work-based contexts for assignments or other learning activities in which students apply their learning. These may include, but are not limited to, applied in-course projects; capstone projects in which students are addressing work-relevant problems or needs; simulation exercises; case studies; role plays; internships; fieldwork; experiential activities; work-site projects; and similar kinds of activities.

#### Evidence can include:

- How the EEQ aligns with assignments and learning activities and to any other curricular, co-curricular, or extracurricular activities (as indicated for each EEQ below).
- Sample syllabi.
- Sample assignment information, including capstone and internship/externship assignments.
- Sample rubrics.

(1.A.1 The program addresses and develops each of the Essential Employability Qualities.)

#### **Contextual Statement**

Please provide a contextual statement describing the program framework (maximum 300 words)

The four-year Bachelor of Science equine science and management undergraduate program involves the study and application of science and business concepts to the horse industry. Additional course work supports learning in areas that aid in breeding and raising horses and marketing the industry. Students come from varied equine backgrounds, but have a common interest in the horse. The program is multi-disciplinary, and students choose an emphasis area in the areas of equine science, equine management and industry or communications and leadership. Regardless of which breed of horse or activity focus students have, equine science and management majors will have the opportunity to combine their interest in the horse with a desire to become active participants in the horse industry. As a result of the program's participation in the EEQ project, the essential employability skills outlined by the QA commons are now integrated into the overall student learning outcomes.

#### FRAMEWORK MAPPING

Mapping the program framework to the EEQs is *REQUIRED*. This allows reviewers to see clearly how the EEQs are met in the existing framework used by the program to identify employability outcomes. Programs may use the **EEQ Mapping Template**, found in the document library, or may present their own format.

To get to the document library, go to the home page. From there, go to Documents > Shared.

xlsx SLO Matrix full sheet.xlsx

*In the below sections, for each of the EEQs, you will be asked to provide details and evidence of other frameworks and program outcomes. You will also be asked to detail (and provide evidence of) course, assignment and assessment mapping.* 

Please note that this sub-criterion (1.A.1), along with 1.A.3. are the two longest sections within the portfolio submission.

#### 5 of 54

#### 1.A.1.i. Graduates and Communicators

- Graduates express ideas and information coherently and appropriately in a variety of modes appropriate to work-based settings, including in writing, orally, interpersonally, and in presentations.
- Graduates participate in discussions by listening actively and responding constructively.
- They demonstrate competence in engaging with others from cultural backgrounds different than their own.

#### (1.A.1.i. Graduates and Communicators)

#### **Other Framework**

Other Framework: If using another employability skills or learning outcomes framework, please include the related competency statement(s) for <u>communicators</u> as described by that framework.

#### **Program Outcomes**

Program Outcomes: Identify program learning outcomes (PLOs) or institutional learning oucomes (ILOs) that are aligned to <u>communicators</u>.

- Students will communicate effectively and professionally through written, oral and visual modes of communication. (GCCR)
- Students will construct a variety of communication pieces to articulate topics within the equine industry.
- Students will construct a variety of professionalism pieces to help prepare them for future careers.
- Students will present equine and professionalism topics through various oral communication methods.

#### Expand on the plus sign to complete this set of questions.

Please provide up to five examples and pieces of evidence around *communicators* for each column within the below Course,

Assignment and Assessment Mapping Table.

First Course Outcome 1.A.1.i.	First Assignment 1.A.1.i	First Assessment 1.A.1.i
EQM 399- Students will communicate effectively through written and oral modes of communication and create a poster to present at the internship showcase.	Internship Poster Presentation & Showcase	In each semester, 80% of students will earn a grade of 80% or greater on the Content and Quality of Visual Display section of the Internship poster rubric.
EQM 490- Students will construct a variety of professionalism pieces to help prepare them for future careers	ePortfolio	In each semester of EQM 490, 80% of students will earn a score of 75% or higher on the ePortfolio assignment utilizing the Auburn ePortfolio grading rubric.
EQM 305- Students will construct a variety of professionalism pieces to help prepare them for future careers.	Scientific Research Presentation	In each semester, 80% of students will earn a grade of 80% or greater on the presentation style section of the Science Power Point Evaluation rubric in EQM 305.
EQM 305- Students will communicate effectively through written and oral modes of communication. (GCCR).	Lay person article	Wildcat Canter page 16-17
EQM 305- Students will communicate effectively through written and oral modes of communication. (GCCR).	Mock Interview	In each semester, 85% of students will earn a rating of average or above on the mock interview rating scale. This will be assessed by the industry professionals conducting the interviews with the students enrolled within the course.

#### Course, Assignment and Assessment Mapping

#### Expand on the plus sign to complete this set of questions.

Please provide up to five examples and pieces of evidence around *communicators* for each column within the below Course,

<b>Course Outcomes</b> In the column, provide Course Learning Outcomes (or other course-level information) that are aligned to this quality.	Assignments & Learning Activities In this column, enter specific assignments or other learning activities that are aligned to this quality, and are applied in a work-related context. Please note whether required or optional.	<b>Assessment of Learning</b> In this column, indicate how these assignments or other learning activities are assessed.
EQM 399- Students will communicate effectively through written and oral modes of communication and create a poster to present at the internship showcase.	Internship Poster Presentation & Showcase	In each semester, 80% of students will earn a grade of 80% or greater on the Content and Quality of Visual Display section of the Internship poster rubric.

7 of 54	pdf Poster Template-Megan Blanton- 1.pdf	pdfEQM 399 - Poster &Presentation Rubric - Fall2019.pdf
EQM 490- Students will construct a variety of professionalism pieces to help prepare them for future careers	ePortfolio	In each semester of EQM 490, 80% of students will earn a score of 75% or higher on the ePortfolio assignment utilizing the Auburn ePortfolio grading rubric.
	pdf eportfolio rubric.pdf	EQM 490.docx

#### Expand on the plus sign to complete this set of questions.

Please provide up to five examples and pieces of evidence around *communicators* for each column within the below Course,

Assignment and Assessment Mapping Table.

<b>Course Outcomes</b> In the column, provide Course Learning Outcomes (or other course-level information) that are aligned to this quality.	Assignments & Learning Activities In this column, enter specific assignments or other learning activities that are aligned to this quality, and are applied in a work-related context. Please note whether required or optional.	<b>Assessment of Learning</b> In this column, indicate how these assignments or other learning activities are assessed.
EQM 490- Students will construct a variety of professionalism pieces to help prepare them for future careers	ePortfolio	In each semester of EQM 490, 80% of students will earn a score of 75% or higher on the ePortfolio assignment utilizing the Auburn ePortfolio grading rubric.
	pdf eportfolio rubric.pdf	docx EQM 490.docx

#### Course, Assignment and Assessment Mapping

#### Expand on the plus sign to complete this set of questions.

Please provide up to five examples and pieces of evidence around *communicators* for each column within the below Course,

8 of 54 <b>Course Outcomes</b> In the column, provide Course Learning Outcomes (or other course-level information) that are aligned to this quality.	Assignments & Learning Activities In this column, enter specific assignments or other learning activities that are aligned to this quality, and are applied in a work-related context. Please note whether required or optional.	<b>Assessment of Learning</b> In this column, indicate how these assignments or other learning activities are assessed.
EQM 305- Students will construct a variety of professionalism pieces to help prepare them for future careers.	Scientific Research Presentation	In each semester, 80% of students will earn a grade of 80% or greater on the presentation style section of the Science Power Point Evaluation rubric in EQM 305.
	EQM 490 rubric for PowerPoint presentation - team.docx	Image: constraint of the second se

#### Expand on the plus sign to complete this set of questions.

Please provide up to five examples and pieces of evidence around *communicators* for each column within the below Course,

Assignment and Assessment Mapping Table.

<b>Course Outcomes</b> In the column, provide Course Learning Outcomes (or other course-level information) that are aligned to this quality.	Assignments & Learning Activities In this column, enter specific assignments or other learning activities that are aligned to this quality, and are applied in a work-related context. Please note whether required or optional.	<b>Assessment of Learning</b> In this column, indicate how these assignments or other learning activities are assessed.
EQM 305- Students will communicate effectively through written and oral modes of communication. (GCCR).	Lay person article	Wildcat Canter page 16-17
		FINAL.pdf

Course, Assignment and Assessment Mapping

Expand on the plus sign to complete this set of questions.

Please provide up to five examples and pieces of evidence around *communicators* for each column within the below Course,

<b>Course Outcomes</b> In the column, provide Course Learning Outcomes (or other course- level information) that are aligned to this quality.	Assignments & Learning Activities In this column, enter specific assignments or other learning activities that are aligned to this quality, and are applied in a work- related context. Please note whether required or optional.	Assessment of Learning In this column, indicate how these assignments or other learning activities a assessed.	
EQM 305- Students will communicate effectively through written and oral modes of communication. (GCCR).	Mock Interview	In each semester, 85% of students will earn a rating of average or above on the mock interview rating scale. This will be assessed by the industry professionals conducting the interviews with the students enrolled within the course.	
		EQM305_MockInterviewRubric_SLO3C_communication_responsibile- professional.pdf	

#### 1.A.1.ii. Graduates are Thinkers and Problem Solvers

- Graduates exercise initiative in applying critical and creative thinking skills to identify and address complex work-related problems.
- Graduates accurately apply quantitative, financial, data, and technical fluency, and demonstrate cultural competence in addressing work-based situations.
- Graduates are system thinkers and demonstrate an ability to understand concepts and perspectives across multiple disciplines and different cultures.

#### (1.A.1.ii. Graduates are Thinkers and Problem Solvers)

#### **Other Framework**

Other Framework: If using another employability skills or learning outcomes framework, please include the related competency statement(s) for *thinkers and problem solvers* as described by that framework.

#### **Program Outcomes**

Program Outcomes: Identify program learning outcomes (PLOs) or institutional learning oucomes (ILOs) that are aligned to *thinkers and problem solvers*.

- Students will demonstrate and evaluate equine handling skills and production management practices.
- Students will construct a summative project that draws on current research, scholarship and techniques in the equine industry.
- Students will apply their knowledge by synthesizing local, national and/or global issues within the equine industry.

#### Expand on the plus sign to complete this set of questions.

Please provide up to five examples and pieces of evidence around *thinkers and problem solvers* for each column within the below

Course, Assignment and Assessment Mapping Table.

First Course Outcome 1.A.1.ii.	First Assignment 1.A.1.ii	First Assessment 1.A.1.ii
ASC 320 - Students will demonstrate and evaluate equine handling skills and production management practices.	Lab activities and lab practical	In each semester, 80% of the students will earn a score of 80% or greater in the following pre-selected categories: concentrate feeds, hays, first aid, body condition scores, TPR, pasture evaluation and fecal egg counts on the ASC 320 laboratory practical exam.
ASC 320- Students will demonstrate critical thinking and problem solving by identifying an issue of "quackery" within the equine industry.	Quackery Assignment	Example Case Study Analysis
EQM 305/490- Students will be able to evaluate sources of information and develop and defend an informed opinion about issues within the equine industry. Students will demonstrate proficiency in performing research related to equine industry issues.	Scientific Powerpoint	In each semester, 80% of students or student groups will earn a grade of 80% or greater in the relevant sections of the Scientific Power Point rubric on the final project in EQM 305.
<ul> <li>EQM 399 - Students will analyze and address an issue or opportunity related to the industry course. This could be done in one of the following ways;</li> <li>1. Identify and evaluate an industry related issue affecting internship site and provide real-life solutions.</li> <li>2. Identify and create a project for the internship site based on a need identified by you and the internship host.</li> </ul>	lssue Analysis/Project Development	In each semester, students will obtain 85% or greater on their overall score for the project development/issue analysis project.

#### Course, Assignment and Assessment Mapping

#### Expand on the plus sign to complete this set of questions.

Please provide up to five examples and pieces of evidence around *thinkers and problem solvers* for each column within the below

12 of 54 <b>Course Outcomes</b> In the column, provide Course Learning Outcomes (or other course-level information) that are aligned to this quality.	Assignments & Learning Activities In this column, enter specific assignments or other learning activities that are aligned to this quality, and are applied in a work-related context. Please note whether required or optional.	<b>Assessment of Learning</b> In this column, indicate how these assignments or other learning activities are assessed.
ASC 320 - Students will demonstrate and evaluate equine handling skills and production management practices.	Lab activities and lab practical	In each semester, 80% of the students will earn a score of 80% or greater in the following pre-selected categories: concentrate feeds, hays, first aid, body condition scores, TPR, pasture evaluation and fecal egg counts on the ASC 320 laboratory practical exam.
	ASC 320 Lab Practical Score Sheets for Assessment.docx	

#### Expand on the plus sign to complete this set of questions.

Please provide up to five examples and pieces of evidence around *thinkers and problem solvers* for each column within the below

Course, Assignment and Assessment Mapping Table.

<b>Course Outcomes</b> In the column, provide Course Learning Outcomes (or other course-level information) that are aligned to this quality.	Assignments & Learning Activities In this column, enter specific assignments or other learning activities that are aligned to this quality, and are applied in a work-related context. Please note whether required or optional.	<b>Assessment of Learning</b> In this column, indicate how these assignments or other learning activities are assessed.
ASC 320- Students will demonstrate critical thinking and problem solving by identifying an issue of "quackery" within the equine industry.	Quackery Assignment	Example Case Study Analysis

#### Course, Assignment and Assessment Mapping

#### Expand on the plus sign to complete this set of questions.

Please provide up to five examples and pieces of evidence around *thinkers and problem solvers* for each column within the below

13 of 54 <b>Course Outcomes</b> In the column, provide Course Learning Outcomes (or other course-level information) that are aligned to this quality.	Assignments & Learning Activities In this column, enter specific assignments or other learning activities that are aligned to this quality, and are applied in a work-related context. Please note whether required or optional.	<b>Assessment of Learning</b> In this column, indicate how these assignments or other learning activities are assessed.
<ul> <li>EQM 305/490-</li> <li>Students will be able to evaluate sources of information and develop and defend an informed opinion about issues within the equine industry.</li> <li>Students will demonstrate proficiency in performing research related to equine industry issues.</li> </ul>	Scientific Powerpoint	In each semester, 80% of students or student groups will earn a grade of 80% or greater in the relevant sections of the Scientific Power Point rubric on the final project in EQM 305.
	EQM 490 rubric for PowerPoint presentation - team.docx	docx   PowerPoint     Presentation1.docx

#### Expand on the plus sign to complete this set of questions.

Please provide up to five examples and pieces of evidence around *thinkers and problem solvers* for each column within the below

<b>Course Outcomes</b> In the column, provide Course Learning Outcomes (or other course-level information) that are aligned to this quality.	<b>Assignments &amp; Learning Activities</b> In this column, enter specific assignments or other learning activities that are aligned to this quality, and are applied in a work-related context. Please note whether required or optional.	<b>Assessment of Learning</b> In this column, indicate how these assignments or other learning activities are assessed.
--	--	--

<ul> <li>addree 命令的方法 Sue or opportunity related to the industry course. This could be done in one of the following ways;</li> <li>1. Identify and evaluate an industry related issue affecting internship site and provide real-life solutions.</li> <li>2. Identify and create a project for the internship site based on a need identified by you and the internship host.</li> </ul>	lssue Analysis/Project Development	In each semester, students will obtain 85% or greater on their overall score for the project development/issue analysis project.
	Project Development and Issue Analysis Analysis Assignment Description (10).pdf	

#### 1.A.1.iii. Graduates are Inquirers

- Graduates conduct inquiry and research by reviewing, evaluating, verifying, citing, and applying multiple sources of information and perspectives to help address work-based problems or to perform tasks.
- Graduates generate new ideas through independent or collaborative inquiry.

#### (1.A.1.iii. Graduates are Inquirers)

#### **Other Framework**

Other Framework: If using another employability skills or learning outcomes framework, please include the related competency statement(s) for *inquirers* as described by that framework.

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#### **Program Outcomes**

Program Outcomes: Identify program learning outcomes (PLOs) or institutional learning oucomes (ILOs) that are aligned to *inquirers*.

#### Student Learning Outcome:

- Students will execute scientifically informed and ethical decisions by utilizing critical thinking, analytical reasoning and/or problem-solving skills.
- •

#### Future plans:

- A question has been added to our advising inventory survey to collect information from students on what undergraduate or external research opportunities they are involved in. Data should be available in Spring 2020.
- In 2020, faculty development will be implemented with a focus on EEQs. This will be intended to educate faculty and instructors in inquiry-based teaching methodology with the hope of increasing the use of these methods in classroom instruction

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#### Course, Assignment and Assessment Mapping

#### Expand on the plus sign to complete this set of questions.

Please provide up to five examples and pieces of evidence around *inquirers* for each column within the below Course,

Assignment and Assessment Mapping Table.

First Course Outcome 1.A.1.iii	First Assignment 1.A.1.iii	First Assessment 1.A.1.iii
EQM 106 - Students will take part in a Strengths Finder and MBTI Personality assessment and write a reflection of their results with personal feedback about how that might impact their future.	Personality and Strengths Finder Assessment and Reflection	Students will complete both assessments and write a 1-page reflection.
395- Special Problems Courses– Students engage in critical thinking and problem solving associated with undergraduate research opportunities.	List of 395 Undergraduate Research Protocol	Protocol development and in place by Director of Undergraduate studies

#### Course, Assignment and Assessment Mapping

#### Expand on the plus sign to complete this set of questions.

Please provide up to five examples and pieces of evidence around *inquirers* for each column within the below Course,

Assignment and Assessment Mapping Table.

<b>Course Outcomes</b> In the column, provide Course Learning Outcomes (or other course-level information) that are aligned to this quality.	Assignments & Learning Activities In this column, enter specific assignments or other learning activities that are aligned to this quality, and are applied in a work-related context. Please note whether required or optional.	<b>Assessment of Learning</b> In this column, indicate how these assignments or other learning activities are assessed.
EQM 106 - Students will take part in a Strengths Finder and MBTI Personality assessment and write a reflection of their results with personal feedback about how that might impact their future.	Personality and Strengths Finder Assessment and Reflection	Students will complete both assessments and write a 1- page reflection.
	EQM 106 Strenghts & Personality Assignment.pdf	

Course, Assignment and Assessment Mapping

#### Expand on the plus sign to complete this set of questions.

Please provide up to five examples and pieces of evidence around *inquirers* for each column within the below Course,

17 of 54 <b>Course Outcomes</b> In the column, provide Course Learning Outcomes (or other course-level information) that are aligned to this quality.	Assignments & Learning Activities In this column, enter specific assignments or other learning activities that are aligned to this quality, and are applied in a work-related context. Please note whether required or optional.	<b>Assessment of Learning</b> In this column, indicate how these assignments or other learning activities are assessed.
395- Special Problems Courses– Students engage in critical thinking and problem solving associated with undergraduate research opportunities.	List of 395 Undergraduate Research Protocol	Protocol development and in place by Director of Undergraduate studies
	pdf       Undergraduate Research         Documentation Protocol.pdf	

#### 1.A.1.iv. Graduates are Collaborators

- Graduates engage in teams and groups and work effectively and willingly in collaboration with others both in person and virtually.
- Graduates seek a range of points of view, are willing to modify their perspectives, and help resolve conflicts where appropriate.
- Graduates work effectively with colleagues from diverse backgrounds and cultures, individually or in groups. They exhibit cross-cultural competence in working with others.
- Graduates take initiative in leading work-based groups, and/or follow direction from others as appropriate.

#### (1.A.1.iv. Graduates are Collaborators)

#### **Other Framework**

Other Framework: If using another employability skills or learning outcomes framework, please include the related competency statement(s) for *collaborators* as described by that framework.

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#### Program Outcomes

Program Outcomes: Identify program learning outcomes (PLOs) or institutional learning oucomes (ILOs) that are aligned to *collaborators*.

• Students will work effectively in diverse environments as an individual or as a collaborative team.

#### Expand on the plus sign to complete this set of questions.

Please provide up to five examples and pieces of evidence around *collaborators* for each column within the below Course,

Assignment and Assessment Mapping Table.

First Course Outcome 1.A.1.iv	First Assignment 1.A.1.iv	First Assessment 1.A.1.iv
EQM 399- Students will gain a more thorough understanding of the activities and functions of career opportunities and expectations within the equine industry by completing 150 hours on an internship placement.	Internship Supervisor Evaluation	In each semester, 85% of students will receive a rating of 4 or higher (on a 5point scale) for adaptability and collaboration on the EQM 399 Supervisor Evaluation given at the completion of the internship.
EQM 399- Students will gain a more thorough understanding of the activities and functions of career opportunities and expectations within the equine industry by completing 150 hours on an internship placement.	Internship Cohort Meetings	In each semester, attendance is required as a part of the internship cohort meeting. Three "in-person" orientations offered for all students participating in internship Zoom sessions offered throughout semester and internship showcase at the culmination
EQM 490 – Students will work effectively in a collaborative team environment.	Capstone Group Project	In each semester, 80% of students will receive an overall rating of very good or higher on their team contribution component of the teamwork assessment tool for both the written paper and the power point presentation.
EQM 106- Students will work as a team to host a guest speaker in class.	Hosting a guest speaker	In each semester, 80% students will receive an overall rating of good or higher on their team contribution component of the teamwork assessment tool for the guest speaker host assignment.
Extracurricular Activities List of equine clubs and teams Wildcat Wrangler Program Syllabus	Wildcat Wrangler Program Syllabus	Equine Clubs & Teams Sheet

#### Course, Assignment and Assessment Mapping

#### Expand on the plus sign to complete this set of questions.

Please provide up to five examples and pieces of evidence around *collaborators* for each column within the below Course,

<b>Course Outcomes</b> In the column, provide Course Learning Outcomes (or other course-level information) that are aligned to this quality.	Assignments & Learning Activities In this column, enter specific assignments or other learning activities that are aligned to this quality, and are applied in a work-related context. Please note whether required or optional.	<b>Assessment of Learning</b> In this column, indicate how these assignments or other learning activities are assessed.
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thorough understanding of the activities and functions of career opportunities and expectations within the equine industry by completing 150 hours on an internship placement.	Internship Supervisor Evaluation	In each semester, 85% of students will receive a rating of 4 or higher (on a 5point scale) for adaptability and collaboration on the EQM 399 Supervisor Evaluation given at the completion of the internship.
	EQM 399 Internship Employer Feedback Survey Results.pdf	

#### Expand on the plus sign to complete this set of questions.

Please provide up to five examples and pieces of evidence around *collaborators* for each column within the below Course,

Assignment and Assessment Mapping Table.

<b>Course Outcomes</b> In the column, provide Course Learning Outcomes (or other course-level information) that are aligned to this quality.	Assignments & Learning Activities In this column, enter specific assignments or other learning activities that are aligned to this quality, and are applied in a work-related context. Please note whether required or optional.	<b>Assessment of Learning</b> In this column, indicate how these assignments or other learning activities are assessed.
EQM 399- Students will gain a more thorough understanding of the activities and functions of career opportunities and expectations within the equine industry by completing 150 hours on an internship placement.	Internship Cohort Meetings	In each semester, attendance is required as a part of the internship cohort meeting. Three "in-person" orientations offered for all students participating in internship Zoom sessions offered throughout semester and internship showcase at the culmination
		EQM 399 Syllabus Spring 2020.pdf

#### Course, Assignment and Assessment Mapping

#### Expand on the plus sign to complete this set of questions.

Please provide up to five examples and pieces of evidence around *collaborators* for each column within the below Course,

21 of 54 <b>Course Outcomes</b> In the column, provide Course Learning Outcomes (or other course-level information) that are aligned to this quality.	Assignments & Learning Activities In this column, enter specific assignments or other learning activities that are aligned to this quality, and are applied in a work-related context. Please note whether required or optional.	<b>Assessment of Learning</b> In this column, indicate how these assignments or other learning activities are assessed.
EQM 490 – Students will work effectively in a collaborative team environment.	Capstone Group Project	In each semester, 80% of students will receive an overall rating of very good or higher on their team contribution component of the teamwork assessment tool for both the written paper and the power point presentation.
		docx   PowerPoint     Presentations.docx

#### Expand on the plus sign to complete this set of questions.

Please provide up to five examples and pieces of evidence around *collaborators* for each column within the below Course,

<b>Course Outcomes</b> In the column, provide Course Learning Outcomes (or other course-level information) that are aligned to this quality.	Assignments & Learning Activities In this column, enter specific assignments or other learning activities that are aligned to this quality, and are applied in a work-related context. Please note whether required or optional.	<b>Assessment of Learning</b> In this column, indicate how these assignments or other learning activities are assessed.
EQM 106- Students will work as a team to host a guest speaker in class.	Hosting a guest speaker	In each semester, 80% students will receive an overall rating of good or higher on their team contribution component of the teamwork assessment tool for the guest speaker host assignment.
	Host Speaker Explaination updated 8-21.pdf	pdf       Team Project Assessment         - Revised 2019.pdf

### Expand on the plus sign to complete this set of questions.

Please provide up to five examples and pieces of evidence around *collaborators* for each column within the below Course,

Assignment and Assessment Mapping Table.

<b>Course Outcomes</b> In the column, provide Course Learning Outcomes (or other course-level information) that are aligned to this quality.	Assignments & Learning Activities In this column, enter specific assignments or other learning activities that are aligned to this quality, and are applied in a work-related context. Please note whether required or optional.	<b>Assessment of Learning</b> In this column, indicate how these assignments or other learning activities are assessed.
<ul> <li>Extracurricular Activities</li> <li>List of equine clubs and teams</li> <li>Wildcat Wrangler Program Syllabus</li> </ul>	• Wildcat Wrangler Program Syllabus	Equine Clubs & Teams Sheet
	pdf       Syllabus EQM 300 Wildcat         Wrangler - Spring 2020.pdf	Information Sheet -Updated January2020.docx

#### 1.A.1.v. Graduates are Adaptable

- Graduates approach new or unfamiliar work-based situations and uncertainty with agility and openness.
- Graduates explore, learn, and apply new roles, ideas, perspectives, approaches, tools, technologies, and strategies to support their effective workplace contributions.
- They understand the implications of an increasingly globally interconnected world, and can work effectively across a variety of environments, cultures, and perspectives.

#### (1.A.1.v. Graduates are Adaptable)

#### **Other Framework**

Other Framework: If using another employability skills or learning outcomes framework, please include the related competency statement(s) for *adaptable* as described by that framework.

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#### **Program Outcomes**

Program Outcomes: Identify program learning outcomes (PLOs) or institutional learning oucomes (ILOs) that are aligned to <u>adaptable</u>.

#### **Student Learning Outcomes:**

- Students will apply their knowledge by synthesizing local, national and/or global issues within the equine industry.
- Students will work effectively in diverse environments as an individual or as a collaborative team.

Future plans:

• In 2020, faculty development will be implemented with a focus on EEQs. This will be intended to educate faculty and instructors in project-based learning teaching methodology with the hope of increasing the use of these methods in classroom instruction to focus on teaching students adaptability.

#### Expand on the plus sign to complete this set of questions.

Please provide up to five examples and pieces of evidence around *adaptable* for each column within the below Course,

Assignment and Assessment Mapping Table.

First Course Outcome 1.A.1.v	First Assignment 1.A.1.v	First Assessment 1.A.1.v
ASC 320 To have knowledge sufficient to provide horses their basic daily needs relative to nutrition, housing and health care.	Lab assignments relating to preparation for lab exams. Onsite labs and schedules	In each semester, 80% of the students will earn a score of 80% or greater in the following pre-selected categories: concentrate feeds, hays, first aid, body condition scores, TPR, pasture evaluation and fecal egg counts on the ASC 320 laboratory practical exam.
EQM 396 - Students will be able to identify personal growth in response to experiences in another culture that challenge students' worldviews.	Germany & Holland Study Abroad	Students will submit a 3-5-page reflective paper upon return from the study abroad experience. They will also design a poster that will reflect their experience.
EQM 399 - Students will gain a more thorough understanding of the activities and functions of career opportunities and expectations within the equine industry by completing 150 hours on an internship placement.	Internship Supervisor Evaluation	In each semester, 85% of students will receive a rating of 4 or higher (on a 5point scale) for adaptability and collaboration on the EQM 399 Supervisor Evaluation given at the completion of the internship.

#### Course, Assignment and Assessment Mapping

#### Expand on the plus sign to complete this set of questions.

Please provide up to five examples and pieces of evidence around *adaptable* for each column within the below Course,

<b>Course Outcomes</b> In the column, provide Course Learning Outcomes (or other course-level information) that are aligned to this quality.	Assignments & Learning Activities In this column, enter specific assignments or other learning activities that are aligned to this quality, and are applied in a work-related context. Please note whether required or optional.	<b>Assessment of Learning</b> In this column, indicate how these assignments or other learning activities are assessed.
ASC 320 To have knowledge sufficient to provide horses their basic daily needs relative to nutrition, housing and health care.	Lab assignments relating to preparation for lab exams. Onsite labs and schedules	In each semester, 80% of the students will earn a score of 80% or greater in the following pre-selected categories: concentrate feeds, hays, first aid, body condition scores, TPR, pasture evaluation and fecal egg counts on the ASC 320 laboratory practical exam.
		ASC 320 Lab Practical Score Sheets for Assessment.docx

#### Expand on the plus sign to complete this set of questions.

Please provide up to five examples and pieces of evidence around *adaptable* for each column within the below Course,

Assignment and Assessment Mapping Table.

<b>Course Outcomes</b> In the column, provide Course Learning Outcomes (or other course-level information) that are aligned to this quality.	Assignments & Learning Activities In this column, enter specific assignments or other learning activities that are aligned to this quality, and are applied in a work-related context. Please note whether required or optional.	<b>Assessment of Learning</b> In this column, indicate how these assignments or other learning activities are assessed.
EQM 396 - Students will be able to identify personal growth in response to experiences in another culture that challenge students' worldviews.	Germany & Holland Study Abroad	Students will submit a 3-5- page reflective paper upon return from the study abroad experience. They will also design a poster that will reflect their experience.
	GER_HOL Syllabus.pdf	

#### Course, Assignment and Assessment Mapping

#### Expand on the plus sign to complete this set of questions.

Please provide up to five examples and pieces of evidence around *adaptable* for each column within the below Course,

<b>Course Outcomes</b> In the column, provide Course Learning Outcomes (or other course-level information) that are aligned to this quality.	Assignments & Learning Activities In this column, enter specific assignments or other learning activities that are aligned to this quality, and are applied in a work-related context. Please note whether required or optional.	<b>Assessment of Learning</b> In this column, indicate how these assignments or other learning activities are assessed.
EQM 399 - Students will gain a more thorough understanding of the activities and functions of career opportunities and expectations within the equine industry by completing 150 hours on an internship placement.	Internship Supervisor Evaluation	In each semester, 85% of students will receive a rating of 4 or higher (on a 5point scale) for adaptability and collaboration on the EQM 399 Supervisor Evaluation given at the completion of the internship.

#### 1.A.1.vi. Graduates are Principled and Ethical

- Graduates make reasoned, ethical decisions about work-based situations or problems.
- Graduates act equitably and with integrity and honesty, with a strong sense of fairness and respect for individuals, groups, and broadly diverse communities.

(1.A.1.vi. Graduates are Principled and Ethical)

#### **Other Framework**

Other Framework: If using another employability skills or learning outcomes framework, please include the related competency statement(s) for *principled and ethical* as described by that framework.

#### **Program Outcomes**

Program Outcomes: Identify program learning outcomes (PLOs) or institutional learning oucomes (ILOs) that are aligned to *principled and ethical*.

#### Student Learning Outcome:

• Students will execute scientifically informed and ethical decisions by utilizing critical thinking, analytical reasoning and/or problem-solving skills.

#### Future plans:

• In 2020, a faculty/staff perception on student's honesty and integrity assessment will be conducted. The intent of this will be to encourage faculty/staff to be open-minded and reduce existing biases that may already exist.

#### Expand on the plus sign to complete this set of questions.

Please provide up to five examples and pieces of evidence around *principled and ethical* for each column within the below

Course, Assignment and Assessment Mapping Table.

First Course Outcome 1.A.1.vi	First Assignment 1.A.1.vi	First Assessment 1.A.1.vi
EQM 305 - Students will demonstrate their knowledge and awareness of local, national and/or global issues within the equine industry. Students will be able to evaluate sources of information and develop and defend an informed opinion about issues within the equine industry.	Contentious Topic Paper	In each semester, 80% of students will earn a grade of 80% or greater on the blending of science and ethics section on the Contentious topics paper rubric in EQM 305.
EQM 101 - Discuss the development of the horse industry, the economic significance it has and potential careers within it	Ethics Assignment	Students will complete an ethics assignment where they read an industry ethics example and respond based on their personal reflection.
EQM 399- Students will apply concepts in this course as well as pre-requisite courses needed to examine career situations that can affect professional decision making.	Ethics in the workplace case study	Students will complete a case study on Ethics in the workplace as a component to the Professionalism Module in the EQM 399 Internship course.

#### Course, Assignment and Assessment Mapping

#### Expand on the plus sign to complete this set of questions.

Please provide up to five examples and pieces of evidence around *principled and ethical* for each column within the below

<b>Course Outcomes</b> In the column, provide Course Learning Outcomes (or other course-level information) that are aligned to this quality.	Assignments & Learning Activities In this column, enter specific assignments or other learning activities that are aligned to this quality, and are applied in a work-related context. Please note whether required or optional.	<b>Assessment of Learning</b> In this column, indicate how these assignments or other learning activities are assessed.
<ul> <li>EQM 305 -</li> <li>Students will demonstrate their knowledge and awareness of local, national and/or global issues within the equine industry.</li> <li>Students will be able to evaluate sources of information and develop and defend an informed opinion about issues within the equine industry.</li> </ul>	Contentious Topic Paper	In each semester, 80% of students will earn a grade of 80% or greater on the blending of science and ethics section on the Contentious topics paper rubric in EQM 305.

28 of 54	Rubric Contentious Topics Paper _ EQM 305 Sept 17_2019.pdf	docx Contentious Topics Research Papers.docx

#### Expand on the plus sign to complete this set of questions.

Please provide up to five examples and pieces of evidence around *principled and ethical* for each column within the below

Course, Assignment and Assessment Mapping Table.

<b>Course Outcomes</b> In the column, provide Course Learning Outcomes (or other course-level information) that are aligned to this quality.	Assignments & Learning Activities In this column, enter specific assignments or other learning activities that are aligned to this quality, and are applied in a work-related context. Please note whether required or optional.	<b>Assessment of Learning</b> In this column, indicate how these assignments or other learning activities are assessed.
EQM 101 - Discuss the development of the horse industry, the economic significance it has and potential careers within it	Ethics Assignment	Students will complete an ethics assignment where they read an industry ethics example and respond based on their personal reflection.
	EQM 101 Ethics Assignment.pdf	

#### Course, Assignment and Assessment Mapping

#### Expand on the plus sign to complete this set of questions.

Please provide up to five examples and pieces of evidence around *principled and ethical* for each column within the below

<b>Course Outcomes</b> In the column, provide Course Learning Outcomes (or other course-level information) that are aligned to this quality.	Assignments & Learning Activities In this column, enter specific assignments or other learning activities that are aligned to this quality, and are applied in a work-related context. Please note whether required or optional.	<b>Assessment of Learning</b> In this column, indicate how these assignments or other learning activities are assessed.
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29 of 54 EQM 399- Students will apply concepts in this course as well as pre-requisite courses needed to examine career situations that can affect professional decision making.	Ethics in the workplace case study	Students will complete a case study on Ethics in the workplace as a component to the Professionalism Module in the EQM 399 Internship course.
	EQM 399 - Professionalism Module (11).pdf	EQM 399 - Professionalism Case Study.pdf

#### 1.A.1.vii. Graduates are Responsible and Professional

- Graduates establish priorities and manage their time to meet the obligations of work-related assignments with a minimum of external supervision or direction.
- Graduates carry out their responsibilities consistently, persistently, and reliably, and maintain appropriate confidentiality.
- Graduates take responsibility for their own actions and the consequences that accompany them.

(1.A.1.vii. Graduates are Responsible and Professional)

#### **Other Framework**

Other Framework: If using another employability skills or learning outcomes framework, please include the related competency statement(s) for *responsible and professional* as described by that framework.

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#### **Program Outcomes**

Program Outcomes: Identify program learning outcomes (PLOs) or institutional learning oucomes (ILOs) that are aligned to <u>responsible and professional</u>.

- Students will communicate effectively and professionally through written, oral and visual modes of communication. (GCCR)
- Students will construct a variety of professionalism pieces to help prepare them for future careers.
- Students will present equine and professionalism topics through various oral communication methods.

#### Expand on the plus sign to complete this set of questions.

Please provide up to five examples and pieces of evidence around <u>responsible and professional</u> for each column within the below

First Course Outcome 1.A.1.vii	First Assignment 1.A.1.vii	First Assessment 1.A.1.vii
EQM 101 - Discuss the development of the horse industry, the economic significance it has and potential careers within it.	Industry Exploration - Page 4 Syllabus	Students will participate in two industry exploration experiences and write a reflection of their time.
EQM 399 Students will gain a more thorough understanding of activities and functions of career opportunities in the equine industry. Students will communicate effectively through written and oral modes of communication. Students will apply concepts in this course as well as pre-requisite courses needed to examine career situations that can affect professional decision making. Students will communicate effectively through written and oral modes of communication and participate in an internship showcase with a poster presentation. Students will gain a more thorough understanding of the activities and functions of career opportunities and expectations within the equine industry by completing 150 hours on an internship placement.	Syllabus with descriptions of course expectations and assignments: Internship host evaluation measuring student professionalism and responsibility Students create LinkedIn account as a part of the professionalism module. Students required to take and submit a photo headshot as a part of the professionalism module. Students part of the professionalism module.	In each semester, 85% of students will receive a rating of 4 or higher (on a Spoint scale) for professionalism and responsibility on the EQM 399 Supervisor Evaluation given at the completion of the internship. Students create LinkedIn account in accordance to the LinkedIn rubric. Students submit a photo headshot In each semester, 80% of students will earn a grade of 80% or greater on the poster presentation section of the EQM 399 internship poster rubric.

32 of 54 First Course Outcome 1.A.1.vii	First Assignment 1.A.1.vii	First Assessment 1.A.1.vii
EQM 106/399 Students will reflect on their passions, future career aspirations, personality and goals to develop a professional growth plan.	Rubric measuring score 1-4 in EQM 106 - EQM 399	In each semester of EQM 106, 80% of students will earn a status of level 2 or greater in their professional growth plan utilizing the Professional Growth Plan Rubric. In each semester of EQM 399, 85% of students will earn a status of level 4 or higher in their professional growth plan utilizing the Professional Growth Plan Rubric.
EQM 300 – Wildcat Wrangler Program At the completion of this course students: Will have developed an overall capacity for leadership and overall professionalism. Will have developed essential employability skills such as written and oral communication, teamwork and networking	EQM 300 Syllabus	Students will engage with the equine industry in a professional and responsible manner and professional by attending and representing the Equine Program at a minimum of four equine industry events and participate in at least two industry networking opportunities.

#### Expand on the plus sign to complete this set of questions.

Please provide up to five examples and pieces of evidence around *responsible and professional* for each column within the below

Course, Assignment and Assessment Mapping Table.

<b>Course Outcomes</b> In the column, provide Course Learning Outcomes (or other course-level information) that are aligned to this quality.	Assignments & Learning Activities In this column, enter specific assignments or other learning activities that are aligned to this quality, and are applied in a work-related context. Please note whether required or optional.	<b>Assessment of Learning</b> In this column, indicate how these assignments or other learning activities are assessed.
EQM 101 - Discuss the development of the horse industry, the economic significance it has and potential careers within it.	Industry Exploration - Page 4 Syllabus	Students will participate in two industry exploration experiences and write a reflection of their time.
		pdf   Syllabus EQM 101 Fall     2019.pdf

#### Course, Assignment and Assessment Mapping

#### Expand on the plus sign to complete this set of questions.

Please provide up to five examples and pieces of evidence around *responsible and professional* for each column within the below

<ul> <li>Students will gain a more thorough understanding of activities and functions of career opportunities in the equine industry.</li> <li>Students will communicate effectively through written</li> </ul>	Syllabus with descriptions of course	
<ul> <li>and oral modes of communication.</li> <li>Students will apply concepts in this course as well as pre- requisite courses needed to examine career situations that can affect professional decision making.</li> <li>Students will communicate effectively through written and oral modes of communication and participate in an internship showcase with a poster presentation.</li> <li>Students will gain a more thorough understanding of the activities and functions of career opportunities and expectations within the equine industry by completing 150 hours on an internship placement.</li> </ul>	<ul> <li>expectations and assignments:</li> <li>Internship host evaluation measuring student professionalism and responsibility</li> <li>Students create LinkedIn account as a part of the professionalism module.</li> <li>Students required to take and submit a photo headshot as a part of the professionalism module.</li> <li>Students participate in an internship showcase at the culmination of the semester.</li> </ul>	In each semester, 85% of students will receive a rating of 4 or higher (on a 5point scale) for professionalism and responsibility on the EQM 399 Supervisor Evaluation given at the completion of the internship. Students create LinkedIn account in accordance to the LinkedIn rubric. Students submit a photo headshot In each semester, 80% of students will earn a grade of 80% or greater on the poster presentation section of the EQM 399 internship poster rubric.
	EQM 399 Syllabus Spring 2020.pdf	pdf EQM 399 - Professionalism Module.pdf

Course, Assignment and Assessment Mapping

Expand on the plus sign to complete this set of questions.

Please provide up to five examples and pieces of evidence around <u>responsible and professional</u> for each column within the below

<b>Course Outcomes</b> In the column, provide Course Learning Outcomes (or other course- level information) that are aligned to this quality.	<b>Assignments &amp; Learning Activities</b> In this column, enter specific assignments or other learning activities that are aligned to this quality, and are applied in a work-related context. Please note whether required or optional.	Assessment of Learning In this column, indicate how these assignments or other learning activities are assessed.
EQM 106/399 • Students will reflect on their passions, future career aspirations, personality and goals to develop a professional growth plan.	Rubric measuring score 1-4 in EQM 106 - EQM 399	In each semester of EQM 106, 80% of students will earn a status of level 2 or greater in their professional growth plan utilizing the Professional Growth Plan Rubric. In each semester of EQM 399, 85% of students will earn a status of level 4 or higher in their professional growth plan utilizing the Professional growth plan utilizing the Professional growth Plan utilizing the Professional Growth Plan Rubric.
	docx       EQM106-         399ProfessionalGrowthPlanRubric_3B_communication_professionalism.docx	

#### Expand on the plus sign to complete this set of questions.

Please provide up to five examples and pieces of evidence around *responsible and professional* for each column within the below

Course, Assignment and Assessment Mapping Table.

Assignments & Learning Activities In this column, enter specific assignments or other learning activities that are aligned to this quality, and are applied in a work- related context. Please note whether required or optional.	<b>Assessment of Learning</b> In this column, indicate how these assignments or other learning activities are assessed.
EQM 300 Syllabus	Students will engage with the equine industry in a professional and responsible manner and professional by attending and representing the Equine Program at a minimum of four equine industry events and participate in at least two industry networking opportunities.
pdf Syllabus EQM 300 Wildcat Wrangler - Spring 2020.pdf	
	In this column, enter specific assignments or other learning activities that are aligned to this quality, and are applied in a work- related context. Please note whether required or optional. EQM 300 Syllabus

#### 1.A.1.viii. Graduates and Learners

- Graduates adopt new tools (technologies or strategies) for working effectively, analyzing work-based situations, or making decisions.
- Graduates continually develop themselves professionally and personally. They assess and understand their strengths and areas for improvement in order to support their learning and professional development.
- Graduates seek out and engage in formal and informal professional learning opportunities on a continuing basis and actively apply learning from these opportunities to work-related assignment.

(1.A.1.viii. Graduates and Learners)

#### **Other Framework**

Other Framework: If using another employability skills or learning outcomes framework, please include the related competency statement(s) for *learners* as described by that framework.

#### **Program Outcomes**

Program Outcomes: Identify program learning outcomes (PLOs) or institutional learning oucomes (ILOs) that are aligned to *learners*.

• Students will define, analyze, and articulate their knowledge of equine science and management content.

#### Course, Assignment and Assessment Mapping

#### Expand on the plus sign to complete this set of questions.

Please provide up to five examples and pieces of evidence around *learners* for each column within the below Course, Assignment

and Assessment Mapping Table.

First Course Outcome 1.A.1.viii	First Assignment 1.A.1.viii	First Assessment 1.A.1.viii
EQM 101/300 - Discuss the development of the horse industry, the economic significance it has and potential careers within it.	Industry Exploration Assignment - Example page 4 of course syllabus	Students will participate in two industry exploration experiences and write a reflection of their time.
EQM 106/399 Students will reflect on their passions, future career aspirations, personality and goals to develop a professional growth plan.	Rubric measuring score 1-4 in EQM 106-399	In each semester of EQM 106, 80% of students will earn a status of level 2 or greater in their professional growth plan utilizing the Professional Growth Plan Rubric. In each semester of EQM 399, 85% of students will earn a status of level 4 or higher in their professional growth plan utilizing the Professional Growth Plan Rubric.
Tuesday TidBits - Sent to all students weekly not as a part of a specific course but as a part of the whole program	Weekly Tuesday TidBits template example	Students use TidBits to explore and examine the job/career and internship opportunities within the industry.
List of Guest Speakers – Exposure of students to various careers and alumni as related to the equine industry.	Guest speakers are integrated into many equine courses. The list of speakers is provided and linked to the EQM course and topic they have discussed upon their course visit.	Students are exposed to guest speakers and required to write a professional thank you card to speakers in EQM 106 and 305.
EQM 300 - Discuss the development of the horse industry, the economic significance it has and potential careers within it.	Industry exploration requirement	Students will participate in two industry exploration experiences and write a reflection of their time.

#### Course, Assignment and Assessment Mapping

#### Expand on the plus sign to complete this set of questions.

Please provide up to five examples and pieces of evidence around *learners* for each column within the below Course, Assignment

and Assessment Mapping Table.

<b>Course Outcomes</b> In the column, provide Course Learning Outcomes (or other course-level information) that are aligned to this quality.	Assignments & Learning Activities In this column, enter specific assignments or other learning activities that are aligned to this quality, and are applied in a work-related context. Please note whether required or optional.	<b>Assessment of Learning</b> In this column, indicate how these assignments or other learning activities are assessed.	
EQM 101/300 - Discuss the development of the horse industry, the economic significance it has and potential careers within it.	Industry Exploration Assignment - Example page 4 of course syllabus	Students will participate in two industry exploration experiences and write a reflection of their time.	

38 of 54	pdf	Syllabus EQM 101 Fall 2019.pdf

#### Course, Assignment and Assessment Mapping

#### Expand on the plus sign to complete this set of questions.

Please provide up to five examples and pieces of evidence around <u>learners</u> for each column within the below Course, Assignment and Assessment Mapping Table.

<b>Course Outcomes</b> In the column, provide Course Learning Outcomes (or other course- level information) that are aligned to this quality.	Assignments & Learning Activities In this column, enter specific assignments or other learning activities that are aligned to this quality, and are applied in a work- related context. Please note whether required or optional.	<b>Assessment of Learning</b> In this column, indicate how these assignments or other learning activities are assessed.
EQM 106/399 Students will reflect on their passions, future career aspirations, personality and goals to develop a professional growth plan.	Rubric measuring score 1-4 in EQM 106-399	In each semester of EQM 106, 80% of students will earn a status of level 2 or greater in their professional growth plan utilizing the Professional Growth Plan Rubric. In each semester of EQM 399, 85% of students will earn a status of level 4 or higher in their professional growth plan utilizing the Professional Growth Plan Rubric.
		EQM106- 399ProfessionalGrowthPlanRubric_3B_communication_professionalism (1).docx

## Expand on the plus sign to complete this set of questions.

Please provide up to five examples and pieces of evidence around *learners* for each column within the below Course, Assignment

and Assessment Mapping Table.

<b>Course Outcomes</b> In the column, provide Course Learning Outcomes (or other course-level information) that are aligned to this quality.	Assignments & Learning Activities In this column, enter specific assignments or other learning activities that are aligned to this quality, and are applied in a work-related context. Please note whether required or optional.	<b>Assessment of Learning</b> In this column, indicate how these assignments or other learning activities are assessed.
Tuesday TidBits - Sent to all students weekly not as a part of a specific course but as a part of the whole program	Weekly Tuesday TidBits template example	Students use TidBits to explore and examine the job/career and internship opportunities within the industry.
		pdf Tuesday Tidbits.pdf

#### Course, Assignment and Assessment Mapping

#### Expand on the plus sign to complete this set of questions.

Please provide up to five examples and pieces of evidence around *learners* for each column within the below Course, Assignment

and Assessment Mapping Table.

<b>Course Outcomes</b> In the column, provide Course Learning Outcomes (or other course-level information) that are aligned to this quality.	Assignments & Learning Activities In this column, enter specific assignments or other learning activities that are aligned to this quality, and are applied in a work-related context. Please note whether required or optional.	<b>Assessment of Learning</b> In this column, indicate how these assignments or other learning activities are assessed.
List of Guest Speakers – Exposure of students to various careers and alumni as related to the equine industry.	Guest speakers are integrated into many equine courses. The list of speakers is provided and linked to the EQM course and topic they have discussed upon their course visit.	Students are exposed to guest speakers and required to write a professional thank you card to speakers in EQM 106 and 305.
		pdf       Host Speaker         Explaination.pdf

## Expand on the plus sign to complete this set of questions.

Please provide up to five examples and pieces of evidence around *learners* for each column within the below Course, Assignment

and Assessment Mapping Table.

Assignments & Learning Activities In this column, enter specific assignments or other learning activities that are aligned to this quality, and are applied in a work-related context. Please note whether required or optional.	<b>Assessment of Learning</b> In this column, indicate how these assignments or other learning activities are assessed.
Industry exploration requirement	Students will participate in two industry exploration experiences and write a reflection of their time.
	pdf       Syllabus EQM 300 Wildcat         Wrangler - Spring         2020.pdf
	In this column, enter specific assignments or other learning activities that are aligned to this quality, and are applied in a work-related context. Please note whether required or optional.

#### 1.A.2 Required exit proficiencies for each EEQ

#### 1.A.2. The program articulates the required exit proficiencies for each of the EEQs

#### (Note: This subcategory is rated by evaluators for exit proficiencies as a whole, not for individual EEQs).

*Evidence summary*: The evidence should indicate how the program defines exit proficiencies for the EEQs that each student needs to attain in order to complete the program. The program may also wish to include any other requirements students have to meet along their path toward meeting the exit proficiencies.

#### Evidence can include:

- Documented policy statements that clarify the level of EEQ proficiency each student is to demonstrate to graduate.
- Program information from the catalog and / or handbooks (with specific pages noted) that articulate required exit proficiencies.
- Website, syllabi, and other information that evidence how exit proficiencies are met.

#### 

#### 1.A.3. The program assures that each graduate meets the required exit proficiencies for each EEQ.

There are several ways that a program can demonstrate it is meeting this requirement, including:

- Embedded assignments in selected courses that occur near the point of graduation and are taken by all students.
- Relevant assignment outcomes should be mapped to EEQs, and sample rubrics can
- be provided that demonstrate meeting each relevant EEQ.
- Results of external licensure exam scores.
- Capstone, internship, or similar culminating experiences, the outcomes of which are mapped to relevant EEQ.
- Exit assessment data.

[NOTE : This assessment is applied to each EEQ independently. Full definitions of each of the EEQs can be found here .]

#### *Evidence Summary:* The evidence provided here should show that:

- The program can verify that it assesses proficiencies at or near graduation.
- The assessment covers work-related contexts. The program can use the contextual

statement to qualify how it currently meets this subcategory.

Evidence can include :

- Specific assignments and the associated rubrics used to assess exit proficiencies.
- Outcomes assessment data reports.
- Program reviews, noting the specific page numbers relevant to this subcategory.
- Program self-studies in response to professional accreditation. If reports are

provided, the program should note the specific page numbers for reviewers.

(1.A.3. The program assures that each graduate meets the required exit proficiencies for each EEQ.)

#### **Contextual Statement**

Please provide a contextual statement applying 1.A.3 in its entirety (maximum 500 words)

The equine science and management program has been very successful in the past in exposing students to a variety of equinerelated content and skills as well as career readiness skills since its existence. However, as a result of our self-assessment and action plan we have developed a more organized and systematic data collection process related to outcomes assessments related to the EEQs. The overall program student learning outcomes have been aligned to all EEQ's and the course outcomes from the equine major requirement courses. This was done intentionally to ensure that all students were held to the same standards and expectations. Therefore, the evidence for each of the areas below primarily includes assignment outlines and rubrics, course syllabi and some student work examples from these equine major requirement courses. Since many of the initiatives are new, limited programmatic data has been collected to date that would show data-based evidence of student growth or development. However, the evidence that does exist is evidence of the ways that using the benchmarks highlighted in the previous section will be used to collect data and assess students. Preliminary data was collected in Fall 2019 and is available in each of the EEQ Maps in section 1.A.1. Example assessment tools for each of the EEQ's are provided below.

#### 1.A.3.i. Graduates are Communicators

- Graduates express ideas and information coherently and appropriately in a variety of modes appropriate to work-based settings, including in writing, orally, interpersonally, and in presentations.
- Graduates participate in discussions by listening actively and responding constructively.
- They demonstrate competence in engaging with others from cultural backgrounds different than their own.

#### (1.A.3.i. Graduates are Communicators)

#### 1.B. All students have multiple opportunities to apply learning in work-relevant contexts

(Such as but not limited to applied projects, capstones, simulations, case studies, internships, fieldwork, experiential activities, work-site projects, etc.)

**Evidence Summary:** The evidence should show that students have ample opportunities to engage in work-relevant contexts during multiple points during their course of study and particularly in the later part of their programs during which evaluation of EEQ performance will likely occur. Include which opportunities are required by all students and which are optional and how student performance is assessed and by whom.

#### Evidence may include:

- Course syllabi that show assignments related to work settings.
- Lists of required and/or voluntary opportunities for students to participate in work-related contexts.
- Internship agreements.
- Internship evaluations.
- Program guidelines.

(1.B. All students have multiple opportunities to apply learning in work-relevant contexts) 🗹

#### **Contextual Statement**

Please provide a contextual statement substantiating evidence for 1.B. (maximum 300 words).

Students completing a degree in Equine Science and Management are required to take a series of courses that connect them to the equine industry and workforce. This is completed in a leveled approach through required courses and experiences within those courses. In the two first-year courses EQM 101 (Introduction to the Horse and Horse Industry) & EQM 106 (Introduction to Careers within the Equine Industry) students are required to attend industry/networking events offered by the program and do job shadowing opportunities. As they move forward throughout the program, they are exposed to various industry leaders as guest speakers in the course and are encouraged to participate in extracurricular activities as a part of the program (clubs and teams, guest speakers, tours, career fair, and more). They are also required to take part in an experiential learning component as a part of the graduation requirement which is an internship experience and a course in conjunction with that (EQM 399). As indicated above we keep an internal database for students to maintain access to with information, job and career opportunities around the clock.

1.C. The program provides all students with verifiable records documenting achievement of EEQs

*Evidence Summary:* The evidence should show specifically how the program documents student attainment of EEQ in a verifiable record.

#### Evidence may include:

- Sample badges, micro-credentials, or certificates.
- Samples of records such as comprehensive student records.
- ePortfolios.
- Extended transcripts that document learning outcomes.
- Narrative evaluations that address the EEQs.

Please ensure any samples provided redact all personal student identifying information. (1.C. The program provides all students with verifiable records documenting achievement of EEQs)

#### **Contextual Statement**

Please provide a contextual statement applying 1.C. (verifiable records) in its entirety (limit 300 words)

The Equine Science and Management Program has implemented an ePortfolio component to the student experience as a part of the final capstone course. This is being pilot tested this fall and will be an essential integrated component to the capstone experience moving forward. This ePortfolio will allow students to showcase their EEQ's and skills gained from various coursework and experiences (intracurricular & extracurricular). In addition to this, we have developed a document that highlights the equine student's path to professionalism from freshman year to their alumni involvement. This is to give students an idea of where and at what points throughout the program they should expect to be gaining skills and participating in professional experiences that will build their capacities in the EEQs.

#### 2.A. Career and employability support services provided to all students throughout program of study

*Evidence Summary*: The evidence should show the career support services provided, the degree to which they are integrated into the program and when, whether they are required or optional, and to what extent they are effective.

#### Evidence can include:

- Usage and outcomes of services and activities provided, including technology-based support.
- Evidence of the connection to and integration within the program.
- Data on the effectiveness of institutional or programmatic support systems (e.g., career services, career pathways, courses, or workshops, mentoring programs, alumni networks, and employer activities.
- Relevant syllabi and assignment information.

(2.A. Career and employability support services provided to all students throughout program of study)

#### **Contextual Statement**

Please provide a contextual statement substantiating evidence for Subcategory 2.A (maximum 300 words)

UK Ag Equine Programs employs a full-time internship coordinator. This position is partially responsible for the preparation of students on professional and personal career development by teaching the required equine careers course; guest lecturing in various classes on career-related topics; facilitating the internship course during the internship semester; meeting with students individually to discuss career preparedness and potential job opportunities. The internship coordinator and academic coordinator work to maintain online resources such as TidBits (which highlights recently posted jobs and internships) and the UK Equine Programs SharePoint which students have constant access to through their UK LinkBlue log in information. The industry and event networking opportunities are hosted and facilitated with career partners, in house to meet the direct needs of students in the equine programs. The College of Agriculture, Food, and Environment also houses a full-time career support services coordinator that meets with students and is open to all students as a resource at all times. These resources are a strength but the overall objectives and areas for further development focus on data and evidence collection for existing programs and initiatives.

#### 3.A. Employers are engaged in developing, delivering, and/or reviewing program outcomes and learning

*Evidence Summary*: The evidence describes the mechanisms in place to engage employers in the development, delivery, and/or review of program outcomes and learning experiences, including the frequency with which these occur. As appropriate, describe the use of labor market information.

#### Evidence can include:

- Mechanisms for and samples of employer engagement activities, including advisory board member lists and / or biographies.
- Meeting agendas or minutes.
- Roles and responsibilities of advisory boards.
- Evidence of employer or industry association partnerships.
- Use and alignment of labor market data to design and revise program outcomes and learning experiences.
- Use of employers to assess student work and/or be engaged in instruction.

#### (3.A. Employers are engaged in developing, delivering, and/or reviewing program outcomes and learning) 🗹

#### **Contextual Statement**

Please provide a contextual statement substantiating evidence for Subcategory 3.A. (maximum 300 words)

One strength of the Equine Science and Management program is the active involvement of equine employers as an integral component the program development. Being geographically located in the "Horse Capital of the World" has allowed for the program to be connected to the current, future and potential employers as well as industry needs and trends. One strength is that various employers are actively engaged. One of the ways this data is tracked is by keeping an inventory of guest speakers to equine classes during each semester. Evidence is currently collected on employer perceptions of intern career readiness. Analytics have been used to improve experiences for students and the program as a means for assessing overall student readiness and growth over time. The equine careers course is now a requirement for all equine students (beginning with incoming freshman, Fall 2019) which will provide exposure to careers, various employers and student development. To date 137 students have taken or are enrolled in this as a required course. The program also has an external advisory committee which consists of equine industry leaders. Minutes from those meetings, along with a list of members are provided below in the attachments. This committee meets twice annually and provides feedback for program improvements and individually offer unique opportunities for students to become involved in the equine industry.

3.B. Employers have clear mechanisms for providing feedback about students, graduates, & the program

*Evidence Summary*: The evidence describes the mechanisms in place to gather feedback from employers about students, graduates, and the program as a whole, including the frequency with which this feedback is gathered.

#### Evidence can include:

- Mechanisms for and samples of employer feedback (e.g., focus group summaries, meeting or interview notes, etc.).
- Findings from locally and / or externally conducted surveys of employers, including internship feedback surveys or reports and follow up actions.
- Methods for and samples of employers' participation in assessing program effectiveness.

(3.B. Employers have clear mechanisms for providing feedback about students, graduates, & the program) 🗹

#### **Contextual Statement**

Please provide a contextual statement substantiating evidence for Subcategory 3.B. (maximum 300 words)

One strength of the Equine Science and Management program is the active involvement of equine employers as an integral component the program development. Being geographically located in the "Horse Capital of the World" has allowed for the program to be connected to the current, future and potential employers as well as industry needs and trends. Evidence is currently collected on employer perceptions of intern career readiness through employer feedback assessments throughout a student's internship. Analytics have been used to improve experiences for students and the program as a means for assessing overall student readiness and growth over time.

The program also has an external advisory committee which consists of equine industry leaders. Minutes from those meetings, along with a list of members are provided below in the attachments. This committee meets twice annually and provides feedback for program improvements and individually offer unique opportunities for students to become involved in the equine industry. For SACS accreditation our program is required to go through a periodic program review which includes a self-study every five years. In 2015, this review was completed and it incorporated feedback from external stakeholders, outside educational reviewers, alumni, students, and faculty/staff. The final report of self-study is attached below. In 2017, as a result of the self-study, an Equine Workforce Summit was hosted by UK Ag Equine Programs to gain feedback from the industry on employer needs. These employers represented the many diverse segments of the equine industry in which our students are to preparing to work in.

#### 3.C. The program systematically uses employer information & feedback to continuously improve

*Evidence Summary*. The evidence describes how the program systematically uses the information and feedback it gathers from employers to make improvements to the program.

#### Evidence can include:

- Evidence of formal and informal processes to improve student and / or program performance based on feedback from employers).
- Samples of improvements implemented, as documented in meeting minutes, assessment, and / or program review reports, syllabi, or other documents.
- Assessments of future employer needs.

(3.C. The program systematically uses employer information & feedback to continuously improve) 🗹

#### **Contextual Statement**

Please provide a contextual statement substantiating evidence for Subcategory 3.C. (maximum 300 words)

One strength of the Equine Science and Management program is the active involvement of equine employers as an integral component the program development. Being geographically located in the "Horse Capital of the World" has allowed for the program to be connected to the current, future and potential employers as well as industry needs and trends. A diverse group of employers are actively engaged in our teaching program and one of the ways this data is tracked is by keeping an inventory of guest speakers to equine classes during each semester. Evidence is currently collected on employer perceptions of intern career readiness and analytics have been used to improve experiences for students and the program as a means for assessing overall student readiness and growth over time.

Progress reports from the 2015 periodic review self-study were submitted in 2015-2016, 2016-2017 and 2018-2019. Those progress reports are attached for review to show how feedback has helped to make changes to the program. The final report from the 2017 Equine Workforce Summit is also provided to showcase evidence of gaining employer and industry feedback. Information from this event regarding employer needs for the equine industry, as well as the 2015 program review provided validation of the changes in the curriculum already in progress made as seen in the curriculum sheet (provided). These changes included adding more essential employability skills into our required coursework for students at many touch points throughout their 4 year undergraduate career.

#### 4.A. Current students have clear mechanisms for providing feedback about the program.

*Evidence Summary*: The evidence describes how the program systematically collects and uses the information and feedback it gathers from students and alumni to make improvements to the program.

#### Evidence can include:

- Mechanisms for student feedback about the program, such as findings from locally and / or externally conducted surveys of students, student engagement, or student participation on advisory boards or other stakeholder meetings regarding preparation for employment and careers.
- Samples of student feedback about the program relevant to preparation for employability.

(4.A. Current students have clear mechanisms for providing feedback about the program)

#### **Contextual Statement**

Please provide a contextual statement substantiating evidence for Subcategory 4.A. (maximum 300 words)

Students are currently given an opportunity to give feedback in a variety of formal and informal ways. One of those methods has been through a Graduate Exit Survey; however, it has been challenging to collect data consistently the past couple years via the since leadership of administering this survey changed to being done at the College level instead of programmatic level. However, the graduate exit survey process is changing and we have plans to be more intentional in 2020 about how we use that. Students will likely be more inclined to provide more useful and meaningful data if they have a better understanding that the data will be utilized in making future programmatic changes. We have been pilot testing a new Program Assessment Plan and have looked at finding ways to more clearly let students know that the information and feedback they supply will be used in a meaningful way to make programmatic changes.

The Wildcat Wranglers (student ambassador program) are a representative sample of equine students that provide consistent and constant feedback about the program as a reflection of the equine student body. This student group represents various class statuses', ages, career focuses and stages of life (i.e. non-traditional, male, female, out of state, in-state) and interact with faculty and staff as well as current students in many ways. They are continually given opportunities to give feedback in formal and informal ways. For example, in the fall semester we had a brainstorming session about curricular needs (attached below). Also, in the senior capstone course (EQM 490), students are now provided with a career readiness survey at the start of the semester. This survey is used to provide meaningful professional development sessions within the capstone course throughout the semester and external class sessions to specifically target that particular cohort's needs. The highest areas of need have been identified and categorized for the in-class sessions and then the out-of-class sessions and will be implemented beginning Spring 2020.

#### **Contextual Statement**

Please provide a contextual statement substantiating evidence for Subcategory 4.B. (maximum 300 words)

Alumni from the Equine Science and Management program are some of the most active out of any major within the College of Agriculture, Food and Environment. Alumni members attend most of the undergraduate events held and plan alumni specific events throughout the year to increase involvement. They have also had a presence as guest lecturers in many of the equine focused courses as well as prospective student events.

Since the Equine Alumni Affiliate Network is still in its infancy, the Board of Directors (BOD) for the affiliate is currently brainstorming and working on a strategic plan which includes more ways to get involved with current students, faculty, and staff. The alumni group has now been added to the UK Ag Equine Programs organization chart (attached) and we are working on creating a "seat" for them to serve on the External Advisory Committee as a representative for equine alumni. A member of the Equine Alumni Affiliate Network also serves on the College of Agriculture, Food and Environment Alumni Committee board. Both of these mechanisms allow equine alumni to have a voice and give feedback about the program in a formal way. Otherwise, faculty and staff are often communicating with alumni through casual conversations and those ideas are often brought back to the program as suggestions for programmatic changes.

In addition, career placement data is collected from alumni and tracked by the academic coordinator to help create reports showcasing the many segments of the industry our alumni are working. This data helps us to look at course topics and assess whether our emphasis areas and/or required courses are meeting industry needs/demands for future employees.

#### 4.C. The program systematically uses student/alumni information & feedback to continuously improve

*Evidence Summary*. The evidence describes how the program systematically uses the information and feedback it gathers from students and alumni to make improvements to the program.

#### Evidence can include:

- Descriptions of formal and informal processes to improve student and / or program performance based on feedback from students and alumni.
- Examples of improvements implemented as documented in meeting minutes, assessment and / or program reports, syllabi, or other documents.

(4.C. The program systematically uses student/alumni information & feedback to continuously improve) 🗹

#### **Contextual Statement**

Please provide a contextual statement substantiating evidence for Subcategory 4.C. (maximum 300 words)

The alumni group has now been added to the UK Ag Equine Programs organization chart and we are working on creating a "seat" for them to serve on the External Advisory Committee as a representative for equine alumni. A member of the Equine Alumni Affiliate Network also serves on the College of Agriculture, Food and Environment Alumni Committee board. Both of these mechanisms allow equine alumni to have a voice and give feedback about the program. The Wildcat Wranglers (student ambassador program) is a representative sample of equine students, they provide consistent and constant feedback about the program as a reflection of the equine student body. This student group represents various class statuses', ages, career focuses and stages of life (i.e. non-traditional, male, female, out of state, in-state). In the senior capstone course (EQM 490), students are now provided with a career readiness survey at the start of the semester. This survey is used to provide meaningful professional development within the capstone course throughout the semester and external class sessions. The highest areas of need have been identified and categorized for the in-class sessions and then the out-of-class sessions and will be implemented beginning Spring 2020.

In addition, alumni and students did have a chance to participate in our 2015 Periodic Program Review and overall curriculum mapping to identify needs, gaps, and issues within the program. This information has helped us to make changes to the program over time, for example, changing the curriculum and requirements for students within the program, which included a greater emphasis on essential employability skills through many touch points in the program.

#### 5.A. The program provides information to the public.

The program provides information to the public about:

- 1. The Essential Employability Qualities that students will acquire;
- 2. How students will acquire the EEQs; and
- 3. The career pathways and professional opportunities for which they will be prepared; and
- 4. Current typical program costs.

*Evidence Summary*: The evidence shows the mechanisms by which the program provides this information to the public.

#### Evidence can include:

- Website links to pages that show the information available to the public.
- Catalog and / or student handbook text excerpts.
- Brochures and / or presentations that are available to the public.

#### (5.A. The program provides information to the public)

#### **Contextual Statement**

Please provide a contextual statement substantiating evidence for Subcategory 5.A. (maximum 300 words)

UK Ag Equine programs has a full-time director of communications on staff that is responsible for the development and distribution of communications materials for all things equine at the University of Kentucky. A part of the proposed 2020 communications plan (from the director) is an overhaul of the program website and informational materials and handouts. As a part of this overhaul, the EEQ committee has made various proposals on content to include on the website and in the communications materials (areas for further development below) to include information referencing the EEQ program with information on how to access more information on the program. The University of Kentucky has existing resources for students to access, but a goal is to collect the necessary elements relevant to the equine students and house them in a central location on the UK Ag Equine programs website. This website overhaul is set to be live in May 2020 and information will be viewable at https://equine.ca.uky.edu/

In addition, we hope to add more information to our Path to Professionalism infographic highlighting our EEQ certification. This is a key recruitment tool that we already use with prospective families highlighting our commitment to the essential employability skills in addition to the equine content that our students will receive during their undergraduate career.

5.B. Program provides public data on completion, job placement, salaries, workplace effectiveness The program provides to the public the following data (3-year trend data where possible):

- 1. Program completion rates, including time to completion, disaggregated by gender, race, and ethnicity;
- 2. Job placement information, further education rates, and/or advancement data of program graduates
- 3. Salary data of program graduates
- 4. Evidence of program graduates' effectiveness in the workplace.
- 5. If these data are not available to the public, please provide a link to institutional completion data.

*Evidence Summary*: The evidence shows the mechanisms by which the program provides this information to the public.

#### Evidence can include:

• Website links to pages that show the information available to the public. For 5.B.d, evidence may include findings of graduate and/or employer surveys or other feedback mechanisms.

(5.B. Program provides public data on completion, job placement, salaries, workplace effectiveness) 🗹

#### **Contextual Statement**

Please provide a contextual statement substantiating evidence for Subcategory 5.B. (maximum 300 words)

UK Ag Equine programs has a full-time director of communications on staff that is responsible for the development and distribution of communications materials for all things equine at the University of Kentucky. A part of the proposed communications plan (from the director) is an overhaul of the program website and informational materials. As a part of this overhaul, the EEQ committee has made various proposals on content to include on the website and in the communications materials (areas for further development below). The University of Kentucky has existing resources for students to access, but a goal is to collect the necessary elements relevant to the equine students and house them in a central location on the UK Ag Equine programs website. Much of this data is reported to our external stakeholders through our equine advisory committee presentations or distributed through newsletters (Wildcat Canter), website, and social media platforms. Information such as program completion, graduation rates, demographic data, etc...can easily be obtained through our information management system - Tableau- and will be added to our communication platforms once the new website is launched. Additional information can be found at https://www.uky.edu/iraa/graduation-retention This information will be accessible at https://equine.ca.uky.edu/

Currently data on alumni job placement is collected annually and reported (see attachments) to include the various segments of the industry that they are working as well as companies and position titles/roles they have obtained after graduation and additional schooling and certification programs they've pursued. This information is collected annually through a survey asking for the information as well as throughout the year as alumni contact is made at events or on social media outlets. The information specific to alumni career placement data will be expanded to include salary data as well as employer satisfaction rates starting in 2020. The final report from the 2017 Equine Workforce Summit will also be made available to the public as it includes the current industry recommendations and needs for employment within the equine industry. All of this information will be included on our website.

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### Bachelor of Science in Equine Science & Management

Suggested Four Year Plan

(Section 6 of Program Change Form)

#### Year One

	Fall			Spring	
EQM 101	Intro to Horse & Horse Industry	3	ASC 101	Domestic Animal Biology	3
GEN 100	Issues in Ag, Food & Env.	3	EQM 105	Equine Behavior & Handling	2
CHE 105	General Chemistry I &	4	CHE 107	General Chemistry II &	3
CHE 111	General Chemistry Lab I OR	1	CHE 113	General Chemistry Lab II OR	2
CHE 104*	Intro to General Chemistry	3	CHE 108	Intro of Organic, Ínorganic &	
CIS/WRD 110	Composition & Communication I	3		Biochemistry	3
	College Algebra or		CIS/WRD 111	Composition & Communication II	3
MA 109 <u>or</u>	Elementary Calculus			Humanities	
123 <u>or</u> 113	-	<u>3-4</u>	UK Core	Intro to Equine Careers	3
		15-	EQM 106		<u>1</u>
		18			15-17

Year Two					
	Fall			Spring	
ASC 320	Equine Management	3	ASC 310	Equine Anatomy	3
BIO 148	Principles of Biology I	3	UK Core	Global Dynamics	3
STA 210 <u>or</u>	Intro to Statistical Reasoning <u>or</u>	3		Emphasis Area Course	3
296	Statistical Methods & Motivations		BIO 152	Principles of Biology II	3
	Social Sciences		EQM 305	Equine Industry Issues (GCCR)	<u>3</u>
UK Core	Principles of Econ I	3			15
ECO 201		<u>3</u>			
		15			

	Year Three					
	Fall			Spring		
UK Core	Arts & Creativity Emphasis Area Courses Specialty Support Electives	3 6 3 <u>0-3</u> 12- 15	EQM 351 AEC 302	Equine Health & Diseases Agricultural Mgmt. Principles Emphasis Area Courses Specialty Support	3 4 6 <u>3</u> <b>16</b>	
		Year	Four			
	Fall			Spring		
EQM 399 UK Core	ESMA Internship Specialty Support Emphasis Area Course Natural Science* <b>OR</b>	3 6 3	EQM 490	Capstone In ESMA Emphasis Area Course Specialty Support Electives	3 3 6 <u>2</u>	

#### **Minimum Total Required Hours: 120**

\*If a student completes CHE 104 & CHE 108, he/she must complete one of the recommended Natural, Physical, and Mathematical Science courses in the UK Core.

<u>3</u> 15

NOTE: If a student completes CHE 105 & 111 and CHE 107/113 vs. the CHE 104 and CHE 108 sequence, the number of elective hours needed to reach the 120 credit hours total will vary.

Electives

## Appendix Core Area 2.h

Timeline	Processes and Curriculum Review	Curriculum Changes
Spring 2017	<ul> <li>Inventoried concepts, knowledge and skills taught in each major requirement course</li> <li>Surveyed faculty, staff, alumni and industry stakeholders regarding perceived importance of curricular topics – to include equine and business specific knowledge and employability skills</li> <li>Hosted a workforce summit to gain industry and employer feedback on desirable employee knowledge and skills and summary paper was developed</li> </ul>	
Summer 2017	<ul> <li>Completed a curriculum mapping two-day retreat with faculty and staff</li> <li>Reviewed information collected from the spring to identify gaps in the curriculum – some existing courses were modified and new courses were developed</li> </ul>	
Fall 2017	Curriculum changes were     prepared and submitted	
Spring 2018	Curriculum changes were     approved and made official for     the 2018-2019 academic year	
Fall 2018	Adjustments to curriculum were made	<ul> <li>Courses added and effective in Fall 2018</li> <li>EQM 305 Equine Industry Issues (major requirement, GCCR course)</li> <li>EQM 396 Equine Study Abroad (major requirement course choice alternative to EQM 399 Academic Enrichment Experience)</li> <li>Courses changed and effective fall 2018</li> <li>EQM 101 Introduction to the Horse and the Horse Industry changed from two to three credit course weight</li> <li>Other Curriculum Changes</li> <li>Math requirement: changed from MA 123 (Elementary Calculus) or MA 113 (Calculus I) to MA 109 (College Algebra), MA 123 or MA 113</li> <li>Removed the Plant Science emphasis area due to minimal student interest</li> </ul>

Equine Science and Management Curriculum Mapping Process and Outline:

		<ul> <li>and incorporated two courses from this emphasis area (PLS 366- Fundamentals of Soil Science and PLS 500- Forage Management and Utilization) into the Equine Science emphasis area</li> <li>Renamed the Community and Leadership Development emphasis area to Communications and Leadership. In consultation with individuals in the Community Leadership and Development Department, we revised the course offerings in this emphasis area to include additional leadership-based courses</li> <li>Updated offerings under the Equine Science and Equine Business emphasis areas to reflect new course offerings since the last curriculum change (ie. ASC 380, AEC 312)</li> </ul>
Spring 2019	<ul> <li>Updated curriculum changes were prepared and submitted. Changes were approved for 2019 fall semester.</li> </ul>	
Fall 2018- Spring 2020	<ul> <li>The Essential Employability Qualities (EEQ) certification portfolio was prepared and submitted to demonstrate how critical employability skills are learned throughout the curriculum</li> <li>EEQ self-assessment, action plan and portfolio can be found in (appendix core area 2.0)</li> </ul>	<ul> <li>Changes effective fall 2019</li> <li>EQM 106 added as a major requirement course (formerly an option under the Equine Business emphasis area)</li> <li>ASC 310 (Equine Anatomy) increased from two credits to three credits</li> <li>Equine Business emphasis area renamed to Equine Management and Industry</li> <li>EQM 302 Equine Event Planning was moved from the Equine Business emphasis area to the Communications and Leadership emphasis area</li> <li>VS 507 Advanced Horse Genetics was added to the Equine Science emphasis area</li> </ul>

Summer 2019- Fall 2020	<ul> <li>An Equine Science and Management Assessment Committee was formed and tasked with revising the Equine Science and Management assessment plan</li> <li>Student Learning Outcomes (SLOs)were revised to reflect new curriculum integration</li> <li>Assessment artifacts were identified for each SLO and benchmarks were identified for each artifact</li> <li>New and revised assessment plan was created using UK's new template</li> <li>Assessment plan was approved by the Office of Strategic Planning and Institutional Effectiveness(appendix core area 2.k)</li> </ul>	<ul> <li>Course changes submitted in Fall 2020</li> <li>EQM 399 approved for distance learning offerings (approved in Spring 2021)</li> <li>New courses submitted in Fall 2020</li> <li>EQM 395 (Independent Study in Equine Science and Management) (approved in Spring 2021)</li> </ul>
Summer 2021	<ul> <li>The first assessment report under the new assessment plan was submitted</li> <li>First section of EQM 395 (Independent Study in Equine Science and Management) was taught</li> </ul>	
Fall 2021		<ul> <li>Course changes fall 2021</li> <li>EQM 301 and 302: added distance learning option</li> <li>New courses submitted in fall 2021</li> <li>EQM 370: Global Sport Horse Industry (in person and distance learning option)</li> <li>EQM 375: Thoroughbred Investments (in person and distance learning option)</li> <li>(Note: These courses have been taught for several years under the EQM 300 course prefix)</li> </ul>

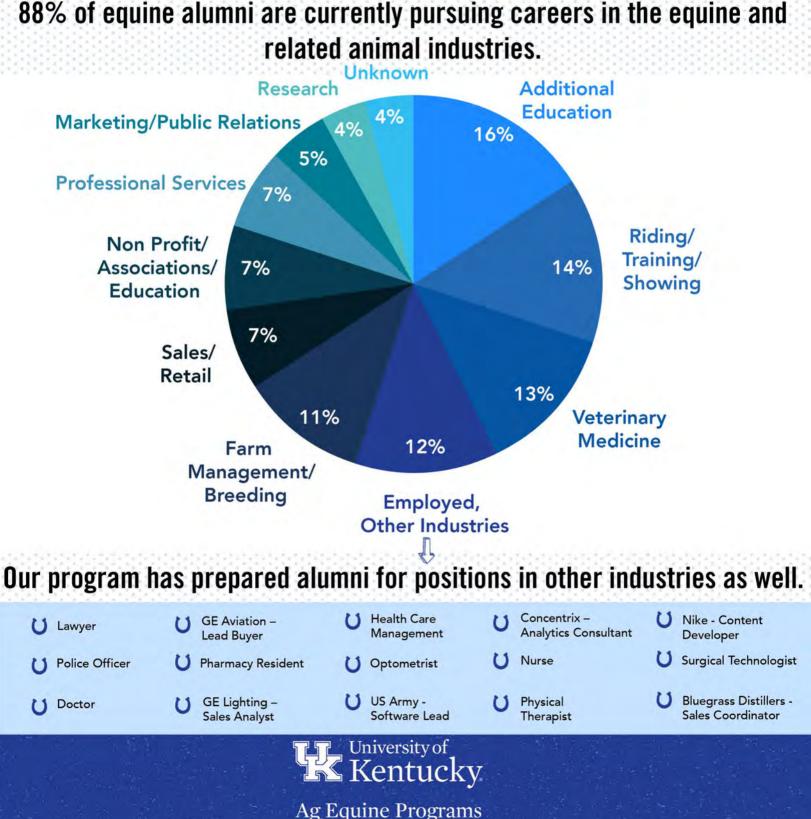
Year	Course integration	Proposed needs for course integration	Skill/Concept List	Example Integration
Year 1	Course: EQM 101 Industry information EQM 106 Job shadowing Guest speakers (industry introduction) Selfassessment Strength's Finder, MBTI Personal Mission Statement (values reflection) SelFinterest survey Professional growth planning Locating and applying for jobs EQM 105 Equine handling Teamwork GEN 100 Teamwork (true colors) Scientific writing and analysis	<ul> <li>Teamwork (small group project)</li> <li>Small writing sample</li> <li>Reflection on working in team based on personalities</li> </ul>	<ul> <li>Self-Management Skills:</li> <li>Selfassessment (professional) – I, A</li> <li>Selfassessment (personal) – I, A</li> <li>Values (personal core values)- I</li> <li>Values (career values)- I</li> <li>Abilities and aptitude exploration – I, A</li> <li>Individual interests assessment- I, A</li> <li>Work/life balance- N/A</li> <li>Career Building Skills:</li> <li>Industry information- I, R</li> <li>Locating/applying for jobs- I</li> <li>Networking/relationshi p building- I, R</li> <li>Essential Employability Skills</li> <li>Written communication- I, R, A</li> <li>Verbal communication- I, R, A</li> <li>Teamwork- I, R</li> <li>Adaptability- I</li> <li>Critical thinking- I, R</li> <li>Inquiry – I</li> <li>Principles and ethical decision making – I</li> <li>Life-long learning- I</li> </ul>	Industry introduction Introduction to self • Strengths • Interests • Personality assessment • Personal values • Personal mission statement Professional growth planning - introduced • Goal setting • SMART goals • Long-term v. short-term • Strategies Teamwork integration (introduced) • What is a team • How does it function • How do I use my own skills to contribute to a team • How do I use my own skills to contribute to a team • How do I work with others with different skills Writing (introduced) • Analysis of pros • Analysis of cons • Forming an educated opinion • Identifying quality resources • Citing resources and references • Utilizing references to write organized thought and idea Locating and applying for jobs • Introduction to job search engines and programs Networking and relationship building • Basics of networking • Communication among peers • Communication among peers • Communication with industry stakeholders (job

				shadows, hosting guest speaker)
Year 2	EQM 305 Industry information and exploration Principled and ethical decision making Job search skills Mock interviews Resume Cover letter Analytical writing Communication skills - Written - Verbal EQM 310 Critical thinking Inquiry EQM 320 Equine management skills Critical thinking	<ul> <li>Writing skills (peer feedback and review)</li> <li>Communicatio n skills</li> <li>Critical thinking</li> <li>Professional planning</li> </ul>	<ul> <li>Self-Management Skills:</li> <li>Self-assessment (professional) – R</li> <li>Self-assessment (personal) – R</li> <li>Values (personal core values)- R</li> <li>Values (career values)- I</li> <li>Abilities and aptitude exploration – I,A</li> <li>Individual interests assessment- I,A</li> <li>Work/life balance- N/A</li> <li>Career Building Skills:</li> <li>Industry information- R,A</li> <li>Locating/applying for jobs- R</li> <li>Networking/relationshi p building- R,A</li> <li>Essential Employability Skills</li> <li>Written communication- R,A</li> <li>Verbal communication- R,A</li> <li>Teamwork- I,R</li> <li>Adaptability- R</li> <li>Critical thinking- R,A</li> <li>Inquiry – I,R</li> <li>Principles and ethical decision making – R,A</li> <li>Life-long learning- R</li> </ul>	Industry information (reinforcement and application)   Issues affecting the industry  Career Building Skills  Conducting the job search  Writing Resume  Writing Cover Letter/letter of intent  Obtaining references  Networking and relationship building  Participating in mock interviews  Communication  Resume  Cover letter  Presentation skills (verbal communication)  Written communication  Professional Planning  Setting short-term internship/academi c enrichment goals
Year 3	EQM 395/399 (academic enrichment)	<ul> <li>Work/life balance</li> <li>Adaptability</li> </ul>	<ul> <li>Self-Management Skills:</li> <li>Self-assessment (professional) – A</li> <li>Self-assessment (personal) – A</li> <li>Values (personal core values)- A</li> <li>Values (career values)- R</li> <li>Abilities and aptitude exploration – A</li> <li>Individual interests assessment- A</li> <li>Work/life balance- I,R</li> <li>Career Building Skills:</li> <li>Industry information- A</li> <li>Locating/applying for jobs- A</li> <li>Networking/relationshi p building- A</li> </ul>	Academic enrichment <ul> <li>Application of skills to date</li> </ul> <li>Networking and relationship building <ul> <li>Working with supervisors and colleagues</li> <li>Individual interviews with supervisor</li> </ul> </li> <li>Communication <ul> <li>Poster creation</li> <li>Presentation</li> <li>Resume review</li> </ul> </li> <li>Diversity and Equity Inclusion <ul> <li>Unconscious bias</li> </ul> </li>
	<ul><li>Computer/excel skills</li><li>Critical thinking</li></ul>		Essential Employability Skills	training Teamwork/collaboration:

Support courses		<ul> <li>Written communication- A</li> <li>Verbal communication- A</li> <li>Teamwork- R,A</li> <li>Adaptability- A</li> <li>Critical thinking- A</li> <li>Inquiry – R,A</li> <li>Principles and ethical decision making – A</li> <li>Responsible and professional – R,A</li> <li>Life-long learning- R,A</li> </ul>	<ul> <li>Supervisor and colleague collaboration</li> <li>Professional planning         <ul> <li>SMART goal review</li> <li>Long term &amp; short term goal setting</li> <li>Strategies or achieving goals</li> </ul> </li> <li>Adaptability         <ul> <li>Handling professional scenarios</li> </ul> </li> <li>Work/life balance</li> <li>Experiential Learning experiences</li> </ul>
Year 4 EQM 490 • Selfmanagement career skills - Budgeting - Negotiation skills - Accepting and applying for jobs • E-portfolio • Inquiry - Analysis of industry issue • Industry information • Critical thinking • Communication - Written - Verbal presentation skills • Teamwork (small groups)	Networking/relationship building Professional reflection Teamwork Written and verbal communication	<ul> <li>Self-Man agement Skills:</li> <li>Self-assessment (professional) – A</li> <li>Self-assessment (personal) – A</li> <li>Values (personal core values)- A</li> <li>Values (career values)- A</li> <li>Abilities and aptitude exploration – A</li> <li>Individual interests assessment- A</li> <li>Work/life balance- R,A</li> <li>Career Building Skills:</li> <li>Industry information- A</li> <li>Locating/applying for jobs-A</li> <li>Networking/relationshi p building- A</li> <li>Essential Employability Skills</li> <li>Written communication- A</li> <li>Verbal communication- A</li> <li>Teamwork- A</li> <li>Adaptability- A</li> <li>Critical thinking- A</li> <li>Inquiry – A</li> <li>Principles and ethical decision making – A</li> <li>Life-long learning- A</li> </ul>	Communication <ul> <li>Resume review and update</li> <li>E-portfolio highlighting all experiences</li> <li>Presentation (give pitch or proposal, or thesis presentation)</li> </ul> Teamwork <ul> <li>Working as a collaborative team for class assignments</li> </ul> <li>Networking and relationship building <ul> <li>Connecting with employers</li> <li>Connecting with alums, stakeholders, etc.</li> </ul> </li> <li>Work/life balance</li> <li>Self-management career skills <ul> <li>Budgeting</li> <li>Job/career benefit analysis</li> <li>Job application, acceptance and negotiation</li> </ul> </li>
Alumn i suppor t			

Equine Science and Management Specific Model created based on information from (Bridgstock, 2009; Cox & King, 2006; Fallows & Steven, 2000).

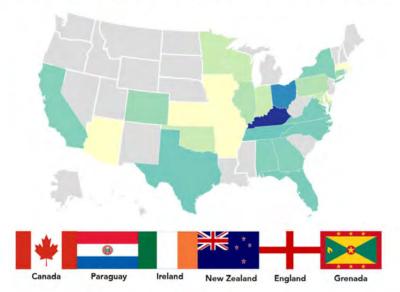
# EQUINE SCIENCE Area 2.j AND MANAGEMENT ALUMNI STATISTICS



College of Agriculture, Food and Environment

## EQUINE SCIENCE Appendix Core Area 2.j AND MANAGEMENT ALUMNI STATISTICS

## Where in the world have our alumni gone?



27% of Alumni have pursued further education. Here's where they raced off to after graduating:

> **Business and** 16% **Management Programs** 14% **Professional School** Equine/Animal Science 14% **Graduate Programs** Thoroughbred 10% Programs Other Graduate 10% **School Programs** 5% Other 4% Education

Veterinary School

27%



Ag Equine Programs

Academic Degree Programs University of Kentucky

#### INSTRUCTIONS

The faculty of each academic program, degree or certificate, are asked to complete this plan template during the 2019-20 academic year to guide assessment of the program-level student learning outcomes (PSLOs) during the <u>upcoming cycle</u>. Assessment plans are due to the Office of Strategic Planning & Institutional Effectiveness (OSPIE) no later than **June 15, 2020** and should be submitted to the appropriate college and program folder in <u>SharePoint</u>.

A <u>Quick Start Guide and other documentation</u> as well as dates for live <u>training sessions</u> are provided on the OSPIE website. Training resources and session topics range from an overview of the new assessment process to principles and practice for student learning outcome assessment. Questions can be directed to <u>OSPIE staff</u>.

Reading the Quick Start Guide prior to completing the new plan template is strongly encouraged.

#### **ABOUT THE PROGRAM**

College or School (example: College of Arts & Sciences)	College of Agriculture, Food and Environment
Degree Type (example: BA or MS)	BS
Program Name (example: History)	Equine Science and Management

#### Please provide the mission statement for the program. If one does not currently exist, provide the department or college mission statement.

UK Ag Equine Programs serves as the front door to equine work being done at UK, representing the breadth and depth of all things equine in the college. It exemplifies the college's long-term commitment to serving the equine industry and horse enthusiasts regionally, nationally and internationally. The mission of the program is to discover, share and apply new knowledge on the health, performance and management of horses, enhancing the signature status of Kentucky's equine industry.

(Optional) Include any additional information about the program's history, development, or structure that may be beneficial in understanding the curriculum and how student learning is assessed.

The University of Kentucky's Equine Science and Management undergraduate degree program is one of three pillars of equine excellence in the College of Agriculture, Food and Environment's Equine Programs. Education, research and extension/outreach are the hallmarks of a land-grant institution and equine programming at UK checks each of those boxes with robust offerings.

The Equine Science and Management program is one of only three standalone four-year equine undergraduate programs connected to a land-grant university in the U.S. All students are required to take courses in the major, which provide a strong foundation in equine science, management and business. Additionally, they can customize their education through at least one of the three emphasis areas available in the major: equine science; equine management and industry; and communications and leadership.

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The emphasis area of equine science will provide students with a strong background in basic sciences, preparing them for admission and success in graduate or professional school programs, including pre-vet, pre-med, pre-dentistry, as well as careers in such areas as laboratory research assistants, breeding technicians, pharmaceutical sales representatives or technical representatives for the feed industry.

In equine management and industry, students learn skills related to marketing, operations and management of equine businesses. This will prepare individuals for careers as farm managers, business managers for equine enterprises, breed associations and sales associates. This emphasis area also introduces students to the diversity of the equine industry through courses in equine law, sales, careers, event planning, marketing and human resources.

The communications and leadership emphasis area is suited for students who are interested in leadership roles in business, breed associations or non-profit equine organizations and cooperative extension. They will enhance their communication skills and be required to take courses in community dynamics, leadership development and agriculture communication.

In addition, students have many opportunities for career and industry growth outside the classroom via academic enrichment in internships or study abroad options, leadership via the program's student ambassador program – Wildcat Wranglers – or participation on one of nine equine clubs and teams.

Students have multiple opportunities to apply learning in work-relevant contexts. The required 150-hour internships, as well as internships students complete outside of curricular requirements, prepare students for work either directly in the equine industry or in affiliated careers. In addition to the internships, there are numerous other interactions with employers, such as the job-shadowing assignment, attending industry events and hosting guest speakers. Career development begins with a strengths assessment during freshman year and progresses through a path to professionalism outlined by the program for the subsequent years.

The Equine Science and Management program recently became one of 10 signature programs in Kentucky to become certified in the Essential Employability Qualities program. The program is required to collect assessment data for the Essential Employability Qualities (EEQ) program and therefore will be collecting additional data throughout the year in addition to the regular program-level SLO data. A plan has been put in place in conjunction with our Program Level SLO assessment plan.

#### ASSESSMENT CYCLE

All programs that do not have specialized accreditation and are not located in a department/college with a specialized accreditation should follow a <u>4-year PSLO assessment cycle</u>. Programs that have specialized accreditation(s) or are within a college that has a comprehensive accreditation can develop an alternate PSLO and periodic review cycle in consultation with OSPIE.

Which cycle will the program being using?

- 4-year cycle [What does this look like?]
- Other (accredited programs/departments only)

Academic Degree Programs University of Kentucky

If the program has selected "other" for the assessment and periodic review cycle, please append a copy of the proposed cycle and a brief justification to this plan.

#### ASSESSMENT COORDINATION AND RESOURCES

Individual(s) coordinating program-level student learning outcomes assessment

First and Last Name	Title/Position	Email
Kristen Wilson, M.S.	Academic Coordinator	Kristen.wilson@uky.edu

#### Other individuals providing oversight, coordination, or support for assessment

First and Last Name	Title/Position
r. Kristine Urschel Director of Undergraduate Studies / Associate Professor	
Savannah Robin, M.S.	Internship Coordinator
Dr. Camie Heleski	Senior Lecturer
Dr. Mary Rossano	Associate Professor

(Optional) Other utilized resources for assessment (e.g. software such as rubrics or portfolios, evaluator stipends, etc.) - NONE

#### **PROGRAM-LEVEL STUDENT LEARNING OUTCOMES**

Please list the program-level student learning outcomes (PSLOs). If applicable, indicate which, if any, outcomes are required by your specialized accreditor(s) [What is this?]. Bachelor's degree programs must also indicate which outcome(s) map to the university's GCCR (Graduation Composition & Communication Requirement). The GCCR is not a requirement for certificates, graduate, or professional programs.

Space for up to 10 PSLOs has been provided below, but this does not imply that 10 outcomes are required. Program faculty should decide the appropriate number based on the design of the curriculum. Most programs have 3-8 outcomes, depending on the length of the program. If more than 10 lines are needed, either insert more lines into the table or submit a request to <u>OSPIE@uky.edu</u> for a template with additional lines for PSLOs.

#### Academic Degree Programs University of Kentucky

PSLO #	Program-level Student Learning Outcome Statement (How should these be written?)	Required by Specialized Accreditor(s) ?	Mapped to GCCR? (Undg degrees only)
1	Students will define, analyze and articulate their knowledge of equine science and management content.	$\boxtimes$	
	A. Students will define and analyze industry terms, practices, and topics at various levels.		
	B. Students will demonstrate and evaluate equine handling skills and production management practices.		
	C. Students will construct a summative project that draws on current research, scholarship and techniques in the equine industry.		
2	Students will apply their knowledge by synthesizing local, national and/or global issues within the equine industry.	$\boxtimes$	
3	Students will communicate effectively and professionally through written, oral and visual modes of communication. (GCCR)		
	<ul> <li>A. Students will construct a variety of communication pieces to articulate topics within the equine industry.</li> <li>B. Students will construct a variety of professionalism pieces to help prepare them for future careers.</li> <li>C. Students will present equine and professionalism topics through various oral communication methods.</li> </ul>	$\boxtimes$	
4	Students will execute scientifically informed and ethical decisions by utilizing critical thinking, analytical reasoning and/or problem-solving skills.		
5	Students will work effectively in diverse environments as an individual or as a collaborative team.		

Please provide a brief description of the process used to develop or revise current PSLOs and the extent to which program faculty were involved. If applicable, provide discussion of any attempts to align PSLOs with professional or accreditation standards, employer expectations and job skills, graduate program curricula, etc. If PSLOs are taken directly from an accreditor, discuss whether (and how) the PSLO statements were reviewed by the faculty to ensure they were comprehensive.

In 2017, the Equines Science and Management program went through a curriculum mapping exercise to identify gaps, duplication and other areas for improvement. As part of this process, faculty and staff as well as stakeholders were able to aid in the process of revising our program level SLOs. Furthermore, once we started the Essential Employability Qualities (EEQ) certification process in Fall 2018, we revised our SLOs even further to map to the eight EEQs, establish benchmarks and identify the assessment tools needed to measure the data we wanted to report. In addition to UK's assessment reporting requirements, we much also submit regular assessment reports to keep the EEQ certification as a program.

Academic Degree Programs University of Kentucky

#### **CURRICULUM MAP**

Please create a map of the PSLOs to the curriculum. All required courses should be included in the left-hand column, and all PSLOs should span across the remaining columns. If desired, specific elective courses or elective "tracks" can be included (recommended). The purpose of the curriculum map is to show where each PSLO is emphasized within the curriculum. The level at which each PSLO is taught within a given course should be indicated as follows: introductory (I); reinforced (R); or mastery (M). Each PSLO should have at least an instance of I, R, and M across the curriculum, with the exception of certain graduate programs where introductory knowledge is provided at the undergraduate level. For assistance in developing a curriculum map, please visit the <u>OSPIE website</u> or contact the <u>OSPIE team</u>.

Course	PSLO1	PSLO2	PSLO3	PSLO4	PSLO5
ASC 101: Domestic Animal Biology	I				
EQM 101: Intro to the Horse and Horse Industry	I	I		Ι	I
EQM 105: Equine Behavior and Handling	I				I
EQM 106: Intro to Equine Careers	I	I	I	I	I
EQM 305: Equine Industry Issues (GCCR)	R	R	I, R	R	
ASC 320: Equine Management	R				
ASC 310: Equine Anatomy	R				
EQM 351: Equine Health and Diseases	R				
EQM 399: ESMA Internship	R	R	R	R	R
EQM 490: ESMA Senior Capstone	M	М	М	Μ	М
AEC 302: Ag Management Practices	I, R				

I = Introduced; indicates that students are introduced to the outcome

R = Reinforced and opportunity to practice; indicates the outcome is reinforced and students afforded opportunities to practice

M = Mastery at the senior or exit level; indicates that students have had sufficient practice and can now demonstrate mastery

#### ASSESSMENTS

### Program-level Student Learning Outcomes Assessment Plan Template

Academic Degree Programs University of Kentucky

Please complete the chart below by listing each assessment on a separate row, and including the requested information. Except for outcomes that focus on students' values or beliefs, at least 1 assessment should be <u>direct</u>. Ideally, all outcomes should have at least 2 assessments. <u>If available, append a copy of the assessment measure/instrument</u> (e.g. scoring rubric or sample questions) to this report. If a goal/target has already been set or can be set for a given measure/instrument, this should be included in the table. Otherwise, the program will need to determine and specify a target/goal when results are first reported for that instrument/measure. Note: space for only 15 instruments/measures have been provided. If space for additional assessment instruments/measures are needed, either insert additional rows into the table or contact <u>OSPIE staff</u> to receive a customized template with additional lines.

Assessment Instrument/ Measure Name	PSLO(s) Mapped to	Assess ment Type (Direct or Indirect)	Assessment Instrument/Measure Description (What is this?)	Assessment Instrument/Measure Rationale (What is this?)	Benchmark or Goal (If Available) (What is this?)	Course(s) (If applicable)	Rubric or Example Appended?
EQM 101 Pre-Post test	1A	Direct	Students will complete a pretest at the beginning of the semester and post questions via the final exam in our introductory equine course typically taken first semester. This course is offered in both fall and spring.	The assessment committee feels that this will give us baseline data that reflect the key equine knowledge all students should know graduating from the program.	In each semester, 80% of students will earn a score of 80% or greater on the final exam on a series of questions that were pre-selected by the course instructor and/or assessment committee.	EQM 101	
Course exam equine knowledge question database	1A	Direct	Exam questions on various key equine knowledge areas will be created and inventoried and linked to subtopic areas within an excel document database. Scores on those topic areas will be collected each semester.	The assessment committee believes this will help us track the key equine knowledge all students should know graduating from the program.	In each semester, 80% of the students will earn a score of 80% or greater within each class on a series of questions that were pre-selected by the course instructor and/or assessment committee	EQM 105, EQM 351, ASC 310 and ASC 320	In development
EQM 105 Skills Self - Assessment	1B	Indirect	Students will be given a skills pretest self-evaluating their horse handling skills	The assessment committee feels that this will give us baseline data that reflect the key equine horse handling	N/A	EQM 105	

				skills all students should know graduating from the program.			
Equine Skills Lab Practical Score Sheets – EQM 105 ASC 320	1B	Direct	Students will be assessed at the end of the semester through a final lab practical on a variety of equine related handling skills and production management practices	The assessment committee feels that this will help us track the key horse handling skills and production management practices all students should know graduating from the program.	EQM 105: In each semester, 80% of students will earn a score of 80% or greater in basic equine handling skills (including leading the horse, grooming and turnout, haltering, knot tying and round pen work) on the EQM 105 lab practical exam. ASC 320: In each semester, 80% of the students will earn a score of 80% or greater in the following pre- selected categories: concentrate feeds, hays, first aid, body condition scores, TPR, pasture evaluation and fecal egg counts on the ASC 320 laboratory practical exam.	EQM 105 and ASC 320	
EQM 305: Scientific Power Point Grading Rubric	1C	Direct	Students will be assessed on their main projects in each course and will be assessed on the Report of Research/Background Information (blue highlighted) specifically for this SLO.	The assessment committee feels that this will help to demonstrate that students are able to construct a summative project utilizing many resources and techniques.	EQM 305: In each semester, 80% of students or student groups will earn a grade of 80% or greater in the relevant sections of the Scientific Power Point rubric on the final project in EQM 305.	EQM 305	
	3A		Students will be assessed on the Scientific Power Point as a visual communications method in this GCCR course.	The assessment committee feels like this rubric will aid in measuring the student's ability to produce a visual communications piece on an equine industry topic	EQM 305: In each semester, 80% of students will earn a grade of 80% or greater overall score on the Scientific power point presentation in EQM 305.		

	3C 4		Students will receive a presentation style score on the Scientific Power Point Rubric (green highlighted section) and this will help to evaluate their ability to present effectively Students will receive a blending of science and ethics score (yellow highlighted) and this will help to assess their ability to think critically about ethical topics	The assessment committee feels that this will help to demonstrate that students are able to communicate effectively The assessment committee feels that this will help to demonstrate that students are able to think critically	EQM 305 (PowerPoint): In each semester, 80% of students will earn a grade of 80% or greater on the presentation style section of the Scientific Power Point Evaluation rubric in EQM 305. EQM 305: In each semester, 80% of students will earn a grade of 80% or greater on the blending of science and ethics section on the EQM 305: Scientific Power Point Grading Rubric.		
EQM 490 Scientific Power Point Grading Rubric	1C 4	Direct	Students will be assessed on their main projects in each course and will be assessed on the Report of Research/Background Information (blue highlighted) specifically for this SLO. Students will receive a blending of science and ethics score (yellow highlighted) and this will help to assess their ability to think critically about ethical topics	The assessment committee feels that this will help to demonstrate that students are able to construct a summative project utilizing many resources and techniques. The assessment committee feels that this will help to demonstrate that students are able to think critically in groups	EQM 490: In each semester, 85% of the student teams will earn a grade of 85% or greater in the relevant sections of the Scientific Power Point rubric on the final project in EQM 490. EQM 490: In each semester, 85% of students will earn a grade of 80% or greater on the blending of science and ethics section on the EQM 490: Scientific Power Point Grading Rubric.	EQM 490	

EQM 305 Contentious Topic Paper Rubric	2	Direct	Students are required to complete a contentious topics paper on an equine related issue and these will be graded using the EQM 305 Contentious Topic Paper Rubric.	The assessment committee feels like this rubric will aid in measuring many areas of this SLO and a cumulative grade on the rubric for the overall project will be used as our data collected.	EQM 305: In each semester, 80% of students will earn a grade of 80% or greater on the contentious topic paper in EQM 305 using the Contentious topic paper rubric.	EQM 305	$\boxtimes$
EQM 490 Debate Grading Rubric	2	Direct	Students are required to participate in team debates on hot industry topics showcasing their ability to think and communicate about industry issues effectively. Taking a stand, side and defending it.	The assessment committee allows students to showcase their ability to research topics, take a side and defend it based off of their knowledge and skills obtained during their undergraduate career.	EQM 490: In each semester, 80% of student teams will earn a rating of average or above on the EQM 490 Group Debate grading rubric.	EQM 490	
EQM 399 Internship Poster Rubric	3A	Direct	Students create a poster each semester on an issue or item analysis they choose to work on as part of their internship and present these posters at the end of the semester at the ESMA Internship Showcase.	The assessment committee feels like the Content and Quality of Visual Display section of this rubric will be a good measurement of this SLO	In each semester, 80% of students will earn a grade of 80% or greater on the Content and Quality of Visual Display section of the Internship poster rubric.	EQM 399	
	3C		Students will communicate effectively through written and oral modes of communication and participate in an internship showcase with a poster presentation.	The assessment committee feels like the poster presentation section of this rubric will be a good measurement of this SLO	In each semester, 80% of students will earn a grade of 90% or greater on the poster presentation section of the EQM 399 internship poster rubric.		

Resume Grading Rubric	3В	Direct	Students create a resume and cover letters in this course after being taught the basics of developing them to start their professionalism component of our curriculum.	The assessment committee feels like the Resume grading rubric score for the overall assignment will demonstrate their ability to create both professionalism pieces.	<ul> <li>In each semester, 90% of students will earn a grade of 90% or greater on each of the resume assignment utilizing the resume grading rubric.</li> <li>In each semester, 80% of students will earn a grade of 80% or greater on each of the cover letter assignment utilizing the resume grading rubric.</li> </ul>	EQM 305	
Professional Growth Plan Grading Rubric	3B	Direct	Students are given the opportunity to do a professional growth plan in the first year within the program in EQM 106 and then explore it again during their internship experience (i.e. EQM 399)	The assessment committee feels like the status levels created for the grading rubric will be easy to track through the student's various progressions of the professional growth plan.	In each semester of EQM 106, 80% of students will earn a status of level 2 or greater in their professional growth plan utilizing the Professional Growth Plan Rubric. In each semester of EQM 399, 85% of students will earn a status of level 4 on their professional growth plan utilizing the Professional Growth Plan Rubric.	EQM 106 and EQM 399	
e-Portfolio Grading Rubric	3В	Direct	Students in Senior Capstone will create an e- portfolio highlighting their undergraduate career and various communication pieces they've created during their time here. Students will be given the formative rubric to use when creating the e- Portfolio and the summative rubric will be used for grading.	The assessment committee feels like this project will help to showcase our students when applying for future jobs, especially their ability to communicate in various ways	In each semester of EQM 490, 85% of students will earn a score of 85% or higher on the e-Portfolio assignment utilizing the Auburn e-Portfolio summative grading rubric.	EQM 490	
EQM 305 Mock Interview Score Sheet	3C	Indirect	Students participate in mock interviews with industry professionals and are assigned based on their future career goals. Interviewers will score	The assessment committee feels that by having outside reviewers score our students that will give us a good grasp of where our students are with	EQM 305 (mock interview): In each semester, 85% of students will earn a rating of average (3) or above (on a 5-point Likert scale) on the mock interview rating scale. This will be assessed by the industry professionals conducting the interviews with the students enrolled within the course.	EQM 305	

			students during the interview process.	being effective communicators during the interview process			
EQM 490: White Paper Grading Rubric for Teams	4	Direct	Students are required to complete a white paper on a contentious topic or industry issue as a team in the ESMA Senior Capstone Course and this paper will be graded using this rubric.	The assessment committee feels like this rubric will aid in measuring many areas of this SLO and a cumulative grade on the rubric for the overall project will be used as our data collected.	EQM 490: In each semester, 85% of student teams will earn a grade of 85% or greater on the EQM 490: White Paper Grading Rubric for the team project.	EQM 490	
Teamwork Assessment Tool	5	Indirect	Students are required to work in a group setting on the final capstone project by writing a paper and presenting a presentation on an industry topic or issue. Students will assess their teammates on a variety of teamwork areas.	Teamwork is an essential skill and students will be able to evaluate their team experience and team member's contributions by utilizing this assessment tool	EQM 490: In each semester, 80% of students will receive an overall rating of very good or higher on their team contribution component of the teamwork assessment tool for both the written paper and the power point presentation.	EQM 490	
EQM 105 Teamwork Equine Assisted Leadership Assessment	5	Indirect	Students will assess their personal leadership and teamwork skills through a pre and post self- assessment before and after the equine leadership activity as part of the EQM 105 lab.	This class is usually taken freshmen or sophomore year and the assessment committee feels like it will give good preliminary data to have on students at the beginning of the program in regard to leadership and teamwork skills and thoughts.	The goal of this assignment is to introduce the concept of teamwork and leadership skills through an equine related activity and give them an opportunity to reflect about the experience.	EQM 105	

EQM 399 Supervisor Evaluation	5	Indirect	Students are required to complete a 150-hour internship. During this experience students are evaluated by their supervisors through online evaluations. One section of the evaluation form includes the supervisor scoring the student on their ability to	adapt in different environments giving us a real world view of	EQM 399: In each semester, 85% of students will receive a rating of 4 or higher (on a 5point Likert scale) for adaptability and collaboration on the EQM 399 Supervisor Evaluation given at the completion of the internship.	EQM 399	$\boxtimes$
				· · ·			
				environments.			

Academic Degree Programs University of Kentucky

#### ASSESSMENT REPORTING CYCLE

Please complete the chart below by providing the requested information for each learning outcome. Note: space for up to 10 PSLOs has been provided. If space for additional PSLOs are needed, either insert additional rows into the table or contact the OSPIE staff to receive a customized template.

PSLO #	Semester/ Year(s) Data Collected	Year(s) Results Submitted to OSPIE (see Results Report Definition)	Year(s) Reflection Report Submitted to OSPIE (see <u>Reflection Report Definition</u> )	Year(s) Action Report Submitted to OSPIE (see Action Report Definition)
Example	Fall / 2020	Summer 2021	Summer 2023	Summer 2024
1A	Fall 2021 and Spring 2022	Summer 2022	Summer 2023	Summer 2024
1B	Fall 2021 and Spring 2022	Summer 2022	Summer 2023	Summer 2024
1C	Fall 2020 and Spring 2021	Summer 2021	Summer 2023	Summer 2024
2	Fall 2020 and Spring 2021	Summer 2021	Summer 2023	Summer 2024
3A	Fall 2020 and Spring 2021	Summer 2021	Summer 2023	Summer 2024
3B	Fall 2020 and Spring 2021	Summer 2021	Summer 2023	Summer 2024
3C	Fall 2020 and Spring 2021	Summer 2021	Summer 2023	Summer 2024
4	Fall 2020 and Spring 2021	Summer 2021	Summer 2023	Summer 2024
5	Summer 2021, Fall 2021 and Spring 2022	Summer 2022	Summer 2023	Summer 2024

### Program-level Student Learning Outcomes Assessment Plan Template

Academic Degree Programs University of Kentucky

#### FEEDBACK AND SUPPORT ON PSLO ASSESSMENT PLAN

Each program has the option of receiving formative feedback on its new or revised PSLO assessment plan from OSPIE staff members. OSPIE staff can provide suggestions for improvement to learning outcome statements, overall assessment plan design, curriculum mapping, standard setting, individual assessment tools, etc. If your program would like to receive feedback on its assessment plan, please indicate below:

- $\boxtimes$  Yes, we would like to receive feedback.
- $\Box$  No thank you, not at this time.

If there are questions the program director or faculty did not have the opportunity to ask prior to submission of the PSLO assessment plan, and you would like to schedule a brief consultation with OSPIE staff, please indicate below:

- Yes, we would like to schedule an individual or group consultation.
- $\boxtimes$  No thank you, not at this time.

#### Program-level Student Learning Outcomes Results Report Template **Academic Degree Programs**

University of Kentucky

#### INSTRUCTIONS

The faculty of each academic program, degree or certificate, are asked to complete this report template during the 2020-21 academic year to provide the results obtained during the first year of the new program-level student learning outcomes (PSLOs) assessment cycle. These results reports are due to the Office of Strategic Planning & Institutional Effectiveness (OSPIE) by July 1, 2021, unless an *earlier* deadline has been set by the college dean, and should be submitted to the appropriate program folder in SharePoint.

Instructional guides, videos, and other materials are available in the SharePoint site to help guide you. You can also reach out to the OSPIE staff with questions or to schedule a consultation.

#### **ABOUT THE PROGRAM**

College or School (example: College of Arts & Sciences)

College of Agriculture, Food and Environment

Degree Type (example: BA, MS, Graduate Certificate)

Program Name (example: History)

Equine Science and Management

BS

#### **CONTACT INFORMATION**

Individual(s) who completed this report								
First and Last Name	Title/Position	Email						
Kristen Wilson, M.S.	Academic Coordinator	Kristen.wilson1@uky.edu						

### Program-level Student Learning Outcomes Results Report Template

Academic Degree Programs University of Kentucky

#### **PROGRAM-LEVEL STUDENT LEARNING OUTCOMES**

Please list all program-level student learning outcomes (PSLOs) for the program in the table below. These can be copied and pasted directly from the program's 2019-20 PSLO assessment plan if one was submitted. Any outcomes that were revised after the 2019-20 PSLO plan was submitted should be indicated by clicking the checkbox in the row for that outcome. Additionally, any parts that were revised should be bolded or highlighted. Note: all PSLOs for the program should be included in the table below, not just those that were assessed in 2020-21. For most programs, approximately half of the PSLOs should have been assessed in 2020-21 but will depend upon the program's 2019-20 PSLO plan.

Space for up to 12 PSLOs has been provided below, but this does not imply that the program is expected to have 12 outcomes. The program may delete any unnecessary outcome lines or insert additional rows if needed.

PSLO #	Program-level Student Learning Outcome Statement (How should these be written?)	Assessed in 2020- 21?	Revised Since <u>2019-20 PSLO</u> <u>Plan</u> ?
1	Students will define, analyze and articulate their knowledge of equine science and management content.		
	A. Students will define and analyze industry terms, practices, and topics at various levels.	$\boxtimes$	
	<ul> <li>B. Students will demonstrate and evaluate equine handling skills and production management practices.</li> <li>C. Students will construct a summative project that draws on current research, scholarship and techniques in the equine industry.</li> </ul>	Only 1C	
2	Students will apply their knowledge by synthesizing local, national and/or global issues within the equine industry.	$\boxtimes$	
3	Students will communicate effectively and professionally through written, oral and visual modes of communication. (GCCR)		
	<ul> <li>A. Students will construct a variety of communication pieces to articulate topics within the equine industry.</li> <li>B. Students will construct a variety of professionalism pieces to help prepare them for future careers.</li> <li>Students will present equine and professionalism topics through various oral communication methods.</li> </ul>	$\boxtimes$	
4	Students will execute scientifically informed and ethical decisions by utilizing critical thinking, analytical reasoning and/or problem-solving skills.	$\boxtimes$	
5	Students will work effectively in diverse environments as an individual or as a collaborative team.		

#### **ASSESSMENT MEASURES**

Complete the table below by listing each measure used for the PSLOs that were assessed during 20-21. If the program filed a PSLO plan with OSPIE in 19-20, most of the information needed for this table can be copied and pasted from the plan. Please check the <u>PSLO SharePoint</u> site to determine whether the program has a plan on file and refer to it as needed. Note: only the PSLOs assessed in 20-21 and the measures used to assess those outcomes need to be listed in the table. **If no PSLO plan is on file for 19-20, program-level student learning outcomes will need to be developed or updated, as needed, from an earlier assessment plan or program proposal and measures to assess those outcomes created and listed below.** 

#### Instructions

- 1. Enter each measure on a separate row. Each measure only needs to be listed once, even if it is used to assess multiple PSLOs.
- 2. In column 2, provide a name for the measure.
- 3. In column 3, enter the corresponding number(s) for the PSLO(s) listed in the table above on p.2-3 that the measure was used to assess.
- 4. If the program submitted a PSLO plan in 19-20 (verify here):
  - a. If the faculty/staff do not wish to make any changes to the measure's description, rationale, or benchmark, click the checkbox in column 4 indicating no changes made. Move on to the next measure; no additional information is needed for this measure.
  - b. If the faculty/staff wish to change one or more of the following: description, rationale, and/or benchmark for the measure, do not select the checkbox in column 4. Next, enter new information ONLY for the aspects of the measure being revised in columns 5-7. For example, if only the description is being updated, there is no need to enter a rationale or benchmark.
- 5. If the program did not submit a plan in 19-20, do not select the checkbox in column 4. Enter all requested information for the measure: description, rationale, and benchmark

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7
Measure #	Assessment Instrument/ Measure Name	PSLO(s) Mapped to Measure	Measure Description, Rationale, & Benchmark Same as <u>19-20</u> <u>Plan</u> ?	New Assessment Instrument/Measure Description ( <u>What is this?</u> ) (complete only if description changed from 19-20 or if 19-20 plan not submitted)	New Assessment Instrument/Measure Rationale ( <u>What is this?</u> ) (complete only if rationale changed from 19-20 or if 19-20 plan not submitted)	New Benchmark or Goal (If Available) ( <u>What is this?</u> ) (complete only if benchmark changed from 19-20 or if 19-20 plan not submitted)
1	EQM 305: Scientific Power Point Grading Rubric	1C, 3A, 3C and 4				
2	EQM 490 Scientific Power Point Grading Rubric	1C, 4	$\boxtimes$			
3	EQM 305 Contentious Topic Paper Rubric	2				
4	EQM 490 Debate Grading Rubric	2				

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7
Measure #	Assessment Instrument/ Measure Name	PSLO(s) Mapped to Measure	Measure Description, Rationale, & Benchmark Same as <u>19-20</u> Plan?	New Assessment Instrument/Measure Description (What is this?) (complete only if description changed from 19-20 or if 19-20 plan not submitted)	New Assessment Instrument/Measure Rationale ( <u>What is this?</u> ) (complete only if rationale changed from 19-20 or if 19-20 plan not submitted)	New Benchmark or Goal (If Available) (What is this?) (complete only if benchmark changed from 19-20 or if 19-20 plan not submitted)
5	EQM 399 Internship Poster Rubric	3A, 3C		New rubric was created to consolidate from 3 pages to 1 page and due to changes because of COVID – virtual presentations instead of in person presentations. Rubric is attached.	The assessment committee believes the Content and Quality of Visual Display section of this rubric will be a good measurement of this SLO The assessment committee believes the poster presentation section of this rubric will be a good measurement of this SLO Consolidating the rubric from one to 3 pages will allow for faculty/staff members to have less papers to sort through while listening and scoring students during poster presentations.	In each semester, 80% of students will earn a grade of 80% or greater on the Content and Quality of Visual Display section of the Internship poster rubric. In each semester, 80% of students will earn a grade of 90% or greater on the poster presentation section of the EQM 399 internship poster rubric.
6	Resume Grading Rubric	3B	$\boxtimes$			

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7
Measure #	Assessment Instrument/ Measure Name	PSLO(s) Mapped to Measure	Measure Description, Rationale, & Benchmark Same as <u>19-20</u> <u>Plan</u> ?	New Assessment Instrument/Measure Description ( <u>What is this?</u> ) (complete only if description changed from 19-20 or if 19-20 plan not submitted)	New Assessment Instrument/Measure Rationale ( <u>What is this?</u> ) (complete only if rationale changed from 19-20 or if 19-20 plan not submitted)	New Benchmark or Goal (If Available) ( <u>What is this?</u> ) (complete only if benchmark changed from 19-20 or if 19-20 plan not submitted)
7	Professional Growth Plan Grading Rubric	3B	$\boxtimes$			
8	ePortfolio Grading Rubric	3B	$\boxtimes$			
9	EQM 305 Mock Interview Score Sheet	3C	$\boxtimes$			
10	EQM 490: White Paper Grading Rubric for Teams	4	$\boxtimes$			

Academic Degree Programs University of Kentucky

#### ASSESSMENT RESULTS

Please complete the chart below by providing the requested information for each measure. The order of the measures should be the same as the Measures Table in the previous section so that numbering is consistent. Note: space for up to 12 measures has been provided. If space for additional measures is needed, either insert additional rows into the table or contact the <u>OSPIE</u> staff to receive a customized template. The program may delete any extra rows that are not needed.

Measure #	Semest er/ Year(s) Data Collect ed	Total Students Assessed	Sampling Strategy or All Students Assessed (What is this?)	Scoring Process (What is this?)	Summary of Results (What should be included here?)	Benchmark (What is this?)	Name of Appendices with Tables of Figs of Results (Optional)
1 – EQM 305 – Scientific Power Point Grading Rubric	Fall 2020 / Spring 2021	72 students (pooled from both semesters)	All students enrolled in EQM 305 and completed the assignment were assessed.	Course instructor gave scores for each of the areas of the EQM 305 – Scientific Power Point Grading rubric which resulted in an overall score for the student's assignment.	<ul> <li>Fall 2020 <ul> <li>1C – Average score on the Report of</li> <li>Research/Background Information section was</li> <li>91%. Of those, 90% of the students had higher than</li> <li>85%.</li> </ul> </li> <li>3A – The overall average score of the power point assignment was 94%. Of those, 93% or higher had higher than 85% as their overall score.</li> <li>3C – The average presentation style score was 92%. Of those, 87% of the students had higher than 85%.</li> <li>4 – The average blending of science and ethics score was 91%. Of those, 90% of the students had higher than 85%.</li> </ul> Spring 2021 <ul> <li>1C – Average score on the Report of Research/Background Information section was 94%. Of those, 93% of the students had higher than 85%.</li> </ul>	Fully Met: Partially Met: Not Met: N/A:	

2 – EQM 490 - Scientific Power Point Grading Rubric	Fall 2020 / Spring 2021	17 teams for a total of 67 students (pooled from both semesters	All students enrolled in EQM 490 and completed the assignment were assessed.	Course instructors discussed and gave scores for each area of the EQM 490 – Scientific Power Point Grading Rubric which resulted in an overall score for the team.	<ul> <li>3A - The overall average score of the power point assignment was 92%. Of those, 88% or higher had higher than 85% as their overall score.</li> <li>3C - The average presentation style score was 90%. Of those, 88% of the students had higher than 85%.</li> <li>4 - The average blending of science and ethics score was 92%. Of those, 93% of the students had higher than 85%.</li> <li>Overall, all benchmarks of 80% of students scoring an 80% or higher (for all PLSOs) were met with flying colors.</li> <li>Fall 2020 <ul> <li>1C - Overall average for overall team score was 91.6%. Of those, 82% received a score of 85% or higher.</li> <li>4 - Overall average was 84.5% and only 73% of the teams received a score of 80% or higher.</li> </ul> </li> <li>Spring 2021 <ul> <li>1C - Overall average for overall team score was a 92%. Of those, 100% received a score of 85% or higher.</li> </ul> </li> <li>Overall average was 94.2% and 100% of the teams received a score of 80% or higher.</li> <li>Overall average was 94.2% and 100% of the teams received a score of 80% or higher.</li> </ul>	Fully Met: Partially Met: Not Met: N/A:		
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3 – EQM 305 – Contentious	Fall 2020 / Spring	72 students (pooled from both	All students enrolled in EQM 305 and completed the assignment were	Course instructor gave scores for each of the areas of the EQM 305-Contentious Topic Grading	<b>Fall 2020</b> Overall average score was a 91% and of those 88% of students had an average score higher than 80%.	Fully Met:	
Topic Paper Rubric	ric score for the student's score for score for score for the student's score for the student's score	Spring 2021 Overall average score was a 91% with 83% of the students having an average score higher than 80%.	Partially Met:				
			Not Met:				
					Overall, benchmarks of students scoring 80% or higher were met.	N/A:	
4 – EQM 490 –	Fall 2020 /	67 students (pooled from both	All student enrolled in EQM 490 that completed the Debate/Situational	Course instructors gave scores for the assignment which resulted in an overall score for the student.	Fall 2020 Overall average score was 86.5. Only 64% received		
Debate Rubric	Spring 2021	semesters)	Ethics Scenario Assignment	in an overall score for the student.	a score of 80% or greater. Spring 2021	Fully Met:	
			5		Overall average score was 94% with all teams scoring 80% or higher on the assignment.	Partially Met:	$\boxtimes$
					Benchmarks were only met in the Spring '21 semester. Assignment was new in Fall '20 and	Not Met:	
					modified in Spring '21. More work needs to be done to find the right assignment to reflect what we're trying to teach to students.	N/A:	

5 –	Fall	45 students	All students enrolled in	Due to Covid, internship	Overall the 80% of students will earn an 80% or		
EQM 399 -	2020 /	(pooled from	EQM 399 for the Fall,	presentations had to be done	higher on the rubric benchmark was met in general;		
Internship	Winter	all three	Winter and Spring	virtually via Zoom instead of in	however, in the future once we get back to in person		
Poster Rubric	2020/	semesters)	semesters were	person. Due to this, the internship	presentations, separate scores for each area will be		
	Spring		assessed through virtual	coordinator consolidated the	reported for both 3A and 3C in future reports.		
	2021		presentations via Zoom.	rubric from 3 pages to 1. Each			
				student received scores for areas		Fully Met:	
				related to the content and visual		·, · · · · ·	
				display of their poster (mapped to			
				PLSO 3A) as well as their ability		Partially Met:	
				to communicate effectively			
				through oral communication		Not Met:	
				about their internship experience		NUCIMEL.	
				(mapped to PSLO 3C) and the			
				poster they are presenting		N/A:	$\boxtimes$
				utilizing the new rubric. However,			
				scores reflected in this report only			
				include the overall score for the			
				rubric instead of separate			
				sections of the rubric for each			
				area due to time limitations.			
6 –	Fall	70 students	Students enrolled in EQM	Course instructor gave scores for	Fall 2020		
Resume	2020 /	(pooled from	305 who completed these	each assignment using the	Resume – The average score on the resume		
Grading Rubric	Spring	both	portions of the overall	Resume Grading Rubric.	assignment was 99% with 100% of the students		
Ū	2021	semesters)	assignment were		receiving a 90% or higher.		
		for the	assessed.				
		Resume			Cover letter – The average score on the resume	Fully Met:	$\boxtimes$
		portion of the			assignment was 96.4% with 100% of the students		
		assignment			receiving a grade of 80% or higher.	Partially Met:	
		Ũ				Fartially Met.	
		68 students			Spring 2021		
		(pooled from			Resume – The average score on the resume	Not Met:	
		both			assignment was 97.6% with 100% of the students		
		semesters)			receiving a 90% or higher.	N1/A	
		for the Cover				N/A:	
		Letter portion			Cover letter – The average score on the resume		
		of the			assignment was 93.4% with 98% of the students		
		assignment			receiving a grade of 80% or higher.		

7 – Professional Growth Plan Grading Rubric	Fall 2020 / Spring 2021	EQM 106 – 89 students (pooled from both semesters)	All students enrolled in EQM 106 (Fall and Spring) and EQM 399 (Fall and Spring) were assessed	Internship coordinator serves as the lead instructor for both classes and the students were scored on a 4-point level scale utilizing the Professional Growth Plan Grading Rubric.	The two students not turning in the cover letter assignment were not included in the Spring '21 averages. All benchmarks were far exceeded for this evaluation tool. Resume scores were on the final draft, not on rough drafts originally submitted. EQM 106 – An average of 88% of the students received a level 2 or higher on their professional growth plans from the Fall 2020 and Spring 2021 semesters. EQM 399 – An average of 48% of the students received a level 4 or higher on their professional growth plans from the Fall 2020 and Spring 2021	Fully Met:	
		EQM 399 – 45 students			semesters.	Partially Met:	$\boxtimes$
		(pooled from both semesters)			Overall the benchmark students scoring an 80% or higher at level 2 was met for EQM 106. However, the benchmark of students scoring an 85% or higher	Not Met:	
					at level 4 was not met for EQM 399. This could have been because there were still several students that had not been in EQM 106 before and therefore this was a new exercise for them. This could have greatly affected the final scores as it's meant to serve as an assignment that builds upon itself.	N/A:	
8 – e-Portfolio	Fall 2020 /	67 students (pooled from	All student enrolled in EQM 490 that created an	Students created an ePortfolio highlighting their academic,	Fall 2020 Overall average was 98.3% on the individual scores	Fully Met:	
Grading Rubric	Spring 2021	both semesters)	e-Portfolio	extracurricular and personal accomplishments. Course instructors gave scores utilizing	for the assignment. Of these, 100% of the student scored an 85% or higher.	Partially Met:	
				the grading rubric resulting in an overall score for each student individually.	<b>Spring 2021</b> Overall average was 93.5% on the individual scores for the assignment. Of these, 91.6% of the student	Not Met:	
					scored an 85% or higher.	N/A:	

					The benchmark of 85% of the students scoring an 85% or higher was met both semesters. More time was spent with students on e-Portfolios in Fall 2020, resulting in higher scores overall.			
9 – EQM 305 Mock Interview Score	Fall 2020 / Spring	70 students (pooled from both	All students enrolled in EQM 305 in these two semesters were	Students participated in mock interviews via Zoom instead of in person due to COVID restrictions.	Overall, 98% of the students received an overall score of average (3) or above on a 5-point Likert scale. The average for both semesters combined	Fully Met:		
Sheet	industry professional closest matched to their future career aspirations and were interviewed. Industry professionals scored the	was 4.22 out of 5. Clearly moving to a virtual format did not affect our student's ability to do well during an interview process and showcase their skills successfully.	Partially Met:					
			Not Met:					
				students utilizing the Mock Interview Score Sheet.		N/A:		
10 – EQM 490: White Paper Grading	Fall 2020 / Spring	67 students (pooled from both	All student enrolled in EQM 490 that completed the White Paper Team	Course instructors gave scores for the assignment which resulted in an overall score for the team	Fall 2020 An average score of 91% was given to teams for their overall grade on this assignment. Of that, 91%	Fully Met:	$\boxtimes$	
Rubric for Teams	or 2021 semesters) Project.	or higher had scores of 85% or higher. Spring 2021	Partially Met:					
					An average score of 96% was give to teams for their overall grade on this assignment. Of that, 100% of	Not Met:		
					the teams scored an 85% or higher. All benchmarks set were accomplished.	N/A:		

### Program-level Student Learning Outcomes Results Report Template

Academic Degree Programs University of Kentucky

#### (OPTIONAL) NOTES TO GUIDE FUTURE REFLECTION

This section provides an opportunity to, optionally, provide an initial reflection and interpretation of the PSLO results and process or potential next steps. The full reflection report will be submitted in Year 3 (22-23), unless the program is following an agreed-upon custom cycle to align with its specialized accreditor. Although not required, this space could be helpful for guiding any initial departmental conversations around the PSLO data and process as well as providing continuity to a new program director, DGS, or DUS.

*EQM 305 Scientific Power Point Rubric* – All benchmarks were met with flying colors. We may want to consider increasing the benchmark to 85% or higher. We may also want to consider having a team of scorers for all the assignments in EQM 305 moving forward to test out the rubric we're using for validity and usability in the future, possibly even for the first drafts of assignments since that's required with it being a GCCR course. This could also assist the instructor with feedback.

**EQM 490 Debate Rubric** – Benchmarks were only met in the Spring '21 semester. Assignment was new in Fall '20 and modified in Spring '21. Instructor indicated that more work needs to be done to find the right assignment to reflect what we're striving to teach to students.

**EQM 490 White Paper Grading Rubric for Teams** – All benchmarks were far exceeded. We may want to consider increasing the benchmark to 85% or higher. Were the teams able to submit a draft for feedback ahead of time as scores seemed very high? We may also want to consider the process in which these are graded and have more input from outside scorers utilizing the rubrics again in the future to check for validity of the rubrics and ease of use.

**EQM 399** – Internship Poster Rubric - Benchmarks were met in general, but separate scores for each area were not reported due to time constraints; Also, students were only assessed by the internship coordinator due to the virtual format because of COVID. In the future, students will be assessed by both the internship coordinator and two other faculty/staff members. Canvas page has now been formatted to catch scores for separate sections so that we can report these in the future more easily. New benchmarks for this rubric starting Fall '21 will include –

3A - In each semester, 80% of students will earn a grade of 80% or greater on the Content and Quality of Visual Display section of the Internship poster rubric.

3C - In each semester, 80% of students will earn a grade of 90% or greater on the poster presentation section of the EQM 399 internship poster rubric.

**Professional Growth Plan Rubric** – Benchmark for EQM 399 was not met. This could have been because there were still several students that had not been in EQM 106 before and therefore this was a new exercise for them. This could have greatly affected the final scores as it's meant to serve as an assignment that builds upon itself. Assignment for EQM 399 needs to be moved to earlier in the semester and could use more facilitation during the EQM 300 semester from the instructor. Will revisit and make changes in Fall '21 semester. EQM 106 students have a good handle on these skills and benchmark should remain.

### Program-level Student Learning Outcomes Results Report Template

Academic Degree Programs University of Kentucky

*Mock Interview Score Sheet* - In the future, we might should consider changing the benchmark to 85% or more of students will receive a score of 4 (slightly above average) or higher instead of 3 (average) or higher.

Overall, we might want to see how draft version scores compare to final draft scores in the future to see how much improvement is made throughout the semester. This may also give us baseline data to work with in the future as well as where our students start in specific areas of knowledge and skills.

#### FEEDBACK AND SUPPORT ON PSLO RESULTS REPORT

Each program has the option of receiving formative feedback on its PSLO assessment report from OSPIE staff members. If your program would like to receive feedback on its assessment report, please indicate below:

- $\boxtimes$  Yes, we would like to receive feedback.
- $\Box$  No thank you, not at this time.

### Summative ePortfolio Rubric

ePortfolios can take many forms, but for the purpose of assessing the outcomes associated with this project, we expect an ePortfolio to tell a coherent story about the student's learning experiences both in and out of classes, synthesize and present those experiences for a general, external, professional audience. ePortfolios of this kind provide evidence of skills and interests through a curated selection of artifacts and craft in the process a professional identity.

#### Critical Thinking Through Reflection

Critical Thinking Through Reflection focuses on evidence of critical thinking (analysis, synthesis, evaluation, creation) as it exists in within artifacts, arrangement, and reflective writing and across the ePortfolio as a whole.

	Beginner: 1	Developing: 2	Mature: 3	Professional: 4
A: Artifacts	Included artifacts show little connection to the overarching story or the story itself is missing. Artifacts are not contextualized so their meaning is supplied more by the viewer than the author. There is little variety of skills, experiences, and learning represented and not enough evidence to support the claims being made. Most artifacts are of the same kind or from the same kind of experience (for example course papers or images of design work).	Some artifacts contribute to the story being told, but some may not. The story is present, but limited and individual artifacts have little contextual information to support their inclusion. There is some variety of skills, experiences, and learning represented. While the overarching story is not supported by all of the artifacts, there are some moments where artifacts do substantiate the claims.	Most artifacts provide evidence of the story being told and most support the claims being made. Artifacts are contextualized so that the reason for their inclusion is almost always clear. The artifacts provided demonstrate a variety of skills, experiences, and learning across a range of courses or co-curricular experiences.	Artifacts provide strong evidence of the story being told and claims being made. Artifacts are well contextualized so that their presence in support of a message is clear throughout. The artifacts provided demonstrate a variety of skills, experiences, and learning and draw from a wide range of experiences both in and out of formal courses.
B: Arrangement	Arrangement is overly simplistic, for example organized by the course or level or presented as a simple gallery or list. There is no evidence of synthesis of learning and the arrangement of artifacts makes the overarching story confusing.	Arrangement is mostly logical though predictable. Some items may be misplaced, disconnected, or underdeveloped. There is limited evidence of synthesis in learning so that the overarching story is vague or in places confusing. The reader has to do too much of the work to interpret the connections.	Arrangement usually reinforces the story and the ePortfolio almost always functions as a curated collection of evidence. There is some evidence of synthesis of learning experiences through the use of repeated themes, links within the ePortfolio, or other motifs that are not overly cliched.	Arrangement consistently reinforces the story. The ePortfolio functions as a carefully curated collection of evidence intentionally assembled to demonstrate synthesis of, and sophisticated thinking about, various learning experiences. The story is clear and nuanced.
C: Reflective Writing	Reflective writing is limited to description. Where attempts to go beyond description occur, they seem simplistic, formulaic, or cliched. The writing is often repetitious and may have numerous errors at the sentence level.	Reflective writing is present and occasionally includes more than description by connecting artifacts together, saying why an experience was important, or connecting lived experience to other sources of knowledge. The writing is almost always correct, but does not fully construct a coherent individual identity.	Reflections often make connections, explains importance, or project into the future, but not consistently so. Where the writing indicates critical thinking, it does so by making connections to specific artifacts and to the story being told across the ePortfolio as a whole. The writing is generally correct and constructs a sense of individual identity, though at times it is overdone or repetitious.	Reflections are insightful and work together to consistently synthesize learning experiences and demonstrate critical thinking about the meaning and application of these experiences without being overdone or repetitious. Across the whole ePortfolio the writing constructs a sophisticated and nuanced identity.



Office of University Writing www.auburn.edu/writing auburnwrites@auburn.edu

5/4/16



**Summative ePortfolio Rubric** 

#### Visual Literacy

Visual Literacy focuses on how the author uses visual elements to provide evidence, construct deeper meaning, and support and enhance the message of the ePortfolio. "Visual elements" refer to any non-text elements such as boxes, icons, buttons, or photographs.

	Beginner: 1	Developing: 2	Mature: 3	Professional: 4
D: Visual Elements	Visual elements <i>decorate</i> the ePortfolio without attention to how they function. They do not support the message or help create identity.	Visual elements <i>illustrate</i> the message but inconsistently or visual elements exist mostly because they are artifacts of design or artistic creation. <i>In either case</i> , visual elements do not consistently contribute to the message or identity.	Visual elements function to illustrate the message or provide evidence of experiences or skills, and almost always sync together with the text to provide additional meaning and craft an identity maintained throughout the ePortfolio.	Visual elements are used both to illustrate and provide evidence, <i>but always</i> with attention to syncing the image and the text and to constructing an appropriate identity. The visual elements included are unique, creative, sophisticated, and convey another layer of the meaning without functioning simply as artifacts.
E: Design Choices	Design choices like color, font, space, and layout are haphazard and distract from the message and identity.	Design choices are often appropriate, but some choices of color, font, space, or layout are ineffective in supporting the message or distract from the identity being created.	Design choices are consistently appropriate, support the message, and aid in the construction of identity. Some of these choices are sophisticated, original, or creative.	Design choices are consistently appropriate, support the message, and aid in the creation of identity. These choices are consistently sophisticated and original/creative.





#### Technical Competency

Technical Competency focuses on the application of technical elements that should enhance the way information is conveyed to an audience, differentiating an ePortfolio from other products (social media sites, blogs, commercial websites) to construct identity. "Navigation" refers to the way the site is set up to let users move through the site and within individual pages. "Technical details" include features like slide shows, scroll bars, hyperlinks, quality or size of graphics, etc.

	Beginner: 1	Developing: 2	Mature: 3	Professional: 4
F: Navigation	Navigation in the ePortfolio is confusing or awkward suggesting little consideration of user experience or limited technical skill.	Navigation is not always consistent or intuitive. There are repetitions in navigation that do not enhance the user's experience or navigation choices that make the user's experience more difficult.	Navigation is thoughtful and facilitates the user's experience, but isn't consistently sophisticated or effective.	Navigation is thoughtful, supports the story being told, and is original/creative even if a template has been used. Navigation within the ePortfolio is sophisticated and improves the user's experience.
G: Attention to Technical Details	Major technical issues detract from the effectiveness of the ePortfolio.	Minor technical issues occur, but these generally do not interfere with the effectiveness of the ePortfolio. Some features are inappropriate <i>or</i> do not contribute to the message or the construction of identity.	No technical issues are detected with the ePortfolio. It is clear how to use the technical features of the ePortfolio. The features used are mostly appropriate <i>and</i> usually contribute to the message and construction of identity.	No technical issues are detected, the features used are appropriate and consistently contribute to the message and identity.
H: Ethical Literacy	Choices in <i>both</i> texts and images are ethically problematic demonstrating little awareness of the public nature of ePortfolios or the necessity for respecting others in this public format. Citations are missing.	Choices in <i>either</i> texts <i>or</i> images are ethically problematic. Questions arise about fair use, ownership, or appropriateness because of the lack of credits or or their inconsistency.	Choices in either texts or images are <i>mostly</i> respectful of others and <i>generally</i> demonstrate an awareness of the public nature of ePortfolios. Credits and acknowledgement exist but are not consistent across the ePortfolio <i>or</i> are not well-handled.	Choices in texts and images <i>consistently</i> respect others <i>and</i> demonstrate awareness of the public nature of ePortfolios. <i>No</i> questions arise about fair use, ownership, or appropriateness because credits and acknowledgements are well-handled throughout the ePortfolio.





Effective	Commun	ication

Effective Communication is focused on the message of the overall ePortfolio rather than individual components.

	Beginner: 1	Developing: 2	Mature: 3	Professional: 4
I. Coherent Message for Intended Audience	The textual and visual elements do not work in unison to construct a consistent identity and central message. The purpose of the ePortfolio as a whole is unclear or overtly clunky (I want a job) or the reader has to do too much of the work to supply that message.	Some elements of the ePortfolio as a whole obscure the message or create confusion about the purpose or the author's identity. There are several moments of public disclosure that do not serve to support the author's message or contribute positively to the construction of identity.	The ePortfolio as a whole is almost always effective in both its message and the construction of identity. Most elements work well together so that the reader is drawn in and feels engaged in learning more about the author and his or her experiences, but there are some points where the pieces do not all work together to demonstrate sophistication in the message or construction of identity.	There is a coherent and effective message being told by the ePortfolio as a whole and an identity is consistently and effectively constructed because all elements work together and demonstrate sophistication and originality/creativity.





LEARN IT. LIVE IT. SHARE IT.

### Auburn ePortfolio Rubric

#### **EFFECTIVE COMMUNICATION**

The ePortfolio demonstrates strong and consistent communication skills

#### Message:

- The central message of the ePortfolio is consistently clear
- Artifacts have been carefully selected to support a central message and consistently function as evidence that supports the claims made in the ePortfolio

#### Audience and purpose:

 The number and kinds of artifacts are well selected and demonstrate careful attention to audience and disciplinary expectations

#### **Revision and editing:**

All components of the ePortfolio show consistent attention to conventions and proofreading:

- Artifacts have been revised to demonstrate mastery
- Where unrevised artifacts are included, they have been purposefully selected to exhibit growth and their presence is explained



#### Score or level for this student outcome:

#### **TECHNICAL COMPETENCY**

The author uses technical features to enrich the delivery of the message

#### Navigation and user experience:

Navigation is thoughtful and intuitive, adds to user experience, and demonstrates the ability to think about the user's needs:

- Navigation guides the user within the ePortfolio, connecting artifacts and experiences across pages or relevant details
- Components of the ePortfolio are clearly labeled and easily used
- Information like resumes and contact information is easily located

#### Intentional use of technology:

Technical features of the site:

- Effectively reinforce the central message
- Convey a consistent professional identity to the intended audience
- Demonstrate a thoughtful application of technical features (slide shows, scroll bars, hyperlinks, animation, etc.)

#### Attention to technical details:

Attention has been given to ensure that technical features work as intended and support the professional identity. Possible examples include:

- Photos and graphics are of high quality with attention paid to size, resolution, and color
- Artifacts that utilize video or sound are well edited and of good quality
- Care has been taken to ensure the entire site works in different browsers and devices
- Links are active and well labeled and artifacts are easily accessed
- Strategies for making the ePortfolio accessible to different users have been utilized effectively

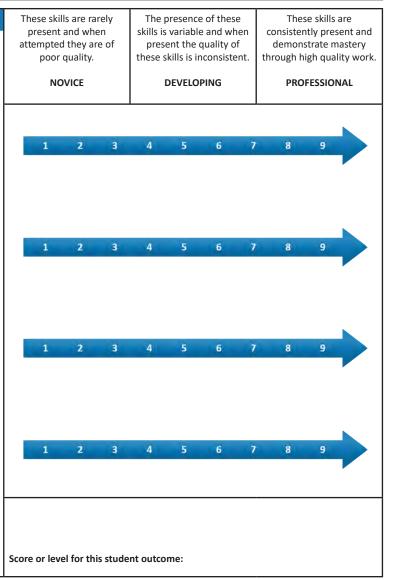
#### Ethical literacy:

There is clear consideration of intellectual property and fair use:

- When another's work is used, credit is given with correct formatting
- There is reference to personal authorship and ownership of materials
   There is consistent and appropriate use of others' likeness work, and
- There is consistent and appropriate use of others' likeness, work, and/ or images

The content of the ePortfolio itself reflects an awareness of the public nature of the internet:

- Careful consideration of privacy issues is evident
- Anonymous individuals are not treated as objects in service of the author's message



#### VISUAL LITERACY

#### The ePortfolio uses visual elements to enhance the effectiveness of the site

#### Message in visual elements:

The author has utilized visual features to further develop elements of the ePortfolio and enhance the overall impact. Possible examples include:

- To enhance text descriptions of experiences
- To convey a message not immediately evident
- As a new way to represent meaning or insight
- To integrate experiences, explanations, and demonstrate connections
- To connect an overall message to individual artifacts

#### Intentional use of visual elements:

The author demonstrates the ability to evaluate effectiveness both within visual elements and across the site itself, demonstrating:

- Consideration of how the audience will interpret the elements
   themselves
- Consistent formatting from page to page
- Layout uses white space, alignment, and placement to appropriately organize content
- Headings, subheadings, and paragraphs contribute to easy identification of elements and readability
- Background and text color are aesthetically pleasing, consistent across the site, and contribute to easy scanning
- Images and icons explain the relationships between these visual elements and the artifacts they accompany

#### Difference from social media:

The visual elements demonstrate:

- An overall professional identity reflecting careful consideration of purpose and audience that differentiates the ePortfolio from a social media site
- A consistent understanding of how visual elements contribute to the audience's interpretation of the author's professional identity

#### **CRITICAL THINKING THROUGH REFLECTION**

The ePortfolio demonstrates critical thinking through reflection across a variety of elements

#### Selection of artifacts:

The selected artifacts in the ePortfolio demonstrate the result of an evaluative process because they:

- Represent various experiences both in and out of class in a coherent way
- Analyze the selected artifacts to demonstrate an intended meaning
  Demonstrate the ability to examine how the artifacts contribute to the
- overall message of the ePortfolio
- Successfully demonstrate the ability to curate a collection of artifacts that creates a clear sense of identity, purpose, and audience

#### Arrangement:

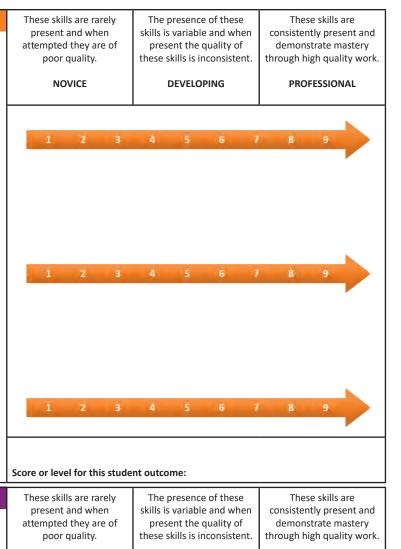
The organization of the ePortfolio:

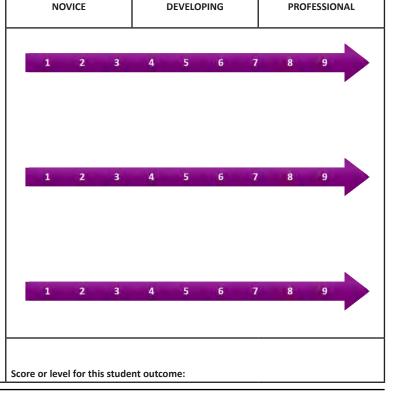
- Demonstrates careful arrangement of artifacts to draw meaningful connections across experiences
- Represents an analytic process to determine placement of experiences based on significance and the order is consistent and effective

#### Reflective writing:

The writing throughout the ePortfolio:

- Reinforces the central message of the ePortfolio
- Justifies the presence of artifacts by explaining why they are included
- Explains the relationship between experiences and their visual
- representations
   Critically examines experiences, perceptions, interpretations, and identity
- Demonstrates a professional identity that simultaneously integrates past experiences and projects into the future







#### AUBURN UNIVERSITY

OFFICE OF UNIVERSITY WRITING

Revised by Ashlee Duffy on 7/23/2015

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#### EQM 101 - PRE-TEST

Name: \_\_\_\_\_\_

Student ID Number: \_\_\_\_\_\_

Hometown/State: \_\_\_\_\_\_

Briefly, please tell me a little bit about your horse background.

What equine related careers are you interested in?

#### The following section is True or False. Please circle T for True and F for False.

- 1. **T or F:** A bay horse is brown or reddish-brown with the same colored legs, mane & tail.
- 2. **T or F:** A snip is the term for a narrow strip of white on the muzzle.
- 3. **T or F:** The jog is a slower, more "western" version of the trot.
- 4. **T or F:** An untrained or "just started" horse is often referred to as "green" or "green-broke."
- 5. **T or F:** The lope is a faster, more "English" version of the canter.

- 6. **T or F:** Quarter horses are the largest breed in the United States and Kentucky.
- 7. T or F: Forages should be the basis for all equine diets.
- 8. **T or F:** Horses on average drink 20 gallons of water per day.
- 9. **T or F:** The resting heart rate of an adult horse ranges from 32-26 beats per minute.
- 10. **T or F:** Following a generic deworming schedule is the best recommendation to fight parasites within the horse.

#### \*\*\*\*\*

11. The four-inch measure used to measure horse height \_\_\_\_\_

12. The term for a young, male horse \_\_\_\_\_

- 13. A buff (light tan) colored horse with black mane and tail and legs\_\_\_\_\_
- 14. When looking at the bottom of the horse's foot, what is the name for the V-shaped area of the foot that absorbs much of the shock when landing?

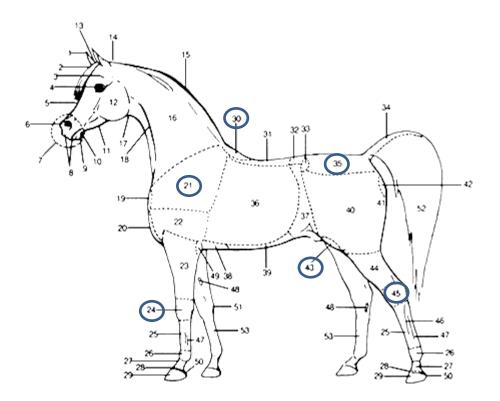
15. A wide strip of white down the face is which marking\_\_\_\_\_\_

16. What is the term for a male horse that has been castrated?

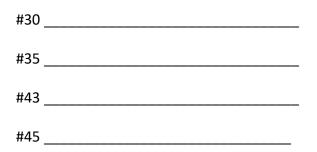
- 17. Which breed of horse is known for excellent endurance, refined head shape, and high tail carriage?
- 18. Which breed of horse is known for its powerful muscling, anhttps://doodle.com/poll/dtkd6gif43c67gy8d its speed for distances up to ¼ of a mile?

19. List one example of a "color breed": \_\_\_\_\_

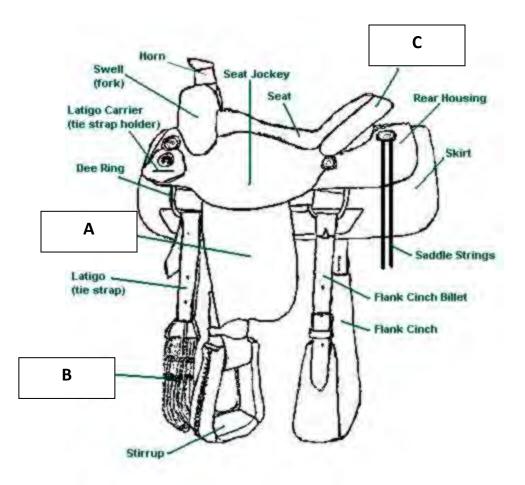
- 20. List one example of a "pony breed": \_\_\_\_\_\_
- 21. List one example of a "draft breed": \_\_\_\_\_\_
- 22. What are the four natural aids used to signal the horse when riding?



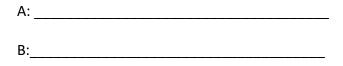
23. Please identify the following parts on the picture above:



- 24. What is the collective name for the bones found at part #24?
- 25. What is the name of the bone underlying part #21?



26. Label the blanks (3) on the picture above:



C: \_\_\_\_\_

#### NAME: \_\_\_\_\_

Completion of this evaluation is required as part of your team project. Responses will <u>not</u> be shared with your team members.

1. Please list each of your team members in the blanks provided below. Then evaluate each team member <u>and</u> yourself based on their/your contributions to the overall project/team and list each component of the project that team member was responsible for.

			Overall Rati			
Name	POOR	FAIR	GOOD	VERY	EXCELLENT	Project
				GOOD		Responsibilities/Contributions
Self	1	2	3	4	5	
	1	2	3	4	5	
	1	2	3	4	5	
	1	2	3	4	5	
	1	2	3	4	5	
	1	2	3	4	5	

#### **Team Project Assessment**

- 2. Use the following categories to assess the degree to which you agree or disagree with each of your fellow students and your individual contributions during the team project.
  - 1 Strongly Disagree
  - 2 Disagree
  - 3 Neutral
  - 4 Agree
  - 5 Strongly Agree

Category	Students' Names (List all team members in the blanks provided below)								
	Self								
Regularly attended group meetings, was punctual and co- operative.									
Contributed ideas and suggestions for the project.									
Listened to the partner's ideas and suggestions.									
Participated in the team planning of setting team goals and delegating responsibilities.									
Carried out a fair share of the tasks assigned by the group.									
<b>TOTAL Points</b> (Add up each column)									

3. What about your team (people, mindsets, behaviors) contributed to your team's ability to successfully complete your project?

4. What areas (if any) do you think your team could have worked better together?

- 5. Please rate your overall experience in working with your team on this project. (Select one)
  - 1 Poor
  - 2 Fair
  - 3 Good
  - 4 Very Good
  - 5 Excellent

 Please evaluate the degree to which you agree or disagree with each of the statements below <u>BEFORE</u> and <u>AFTER</u> working on this team project. (Select one BEFORE <u>and</u> one AFTER score for each item listed.)

			BEFORE			AFTER					
	Strongly	Disagree	Neutral	Agree	Strongly		Strongly	Disagree	Neutral	Agree	Strongly
	Disagree				Agree		Disagree				Agree
Listening to											
other people's	1	2	3	4	5		1	2	3	4	5
ideas is											
important.											
It is important											
to ask											
questions of	1	2	3	4	5		1	2	3	4	5
your team											
members.											
Team members											
should be											
willing to	1	2	3	4	5		1	2	3	4	5
question each											
other and											
rethink ideas.											
It is important											
to treat each											
other with	1	2	3	4	5		1	2	3	4	5
respect and											
support one											
another.											
Team members											
should											
contribute to	1	2	3	4	5		1	2	3	4	5
all aspects of a											
team project in											
some way.											
Good											
communication											
is essential for	1	2	3	4	5		1	2	3	4	5
a team to work											
effectively.											

#### EQM 105 Horse Handling Self-Assessment - 2021

Please answer the following questions on a scale of **1** to **10**, with 1 representing the lowest value and 10 representing the highest value. Circle your answer.

What is your level of comfort with leading a mature, trained horse inside a barn?

1	2	3	4	5	6	7	8	9	10

What is your level of comfort with leading a young horse (like a yearling) to a pasture?

1	2	3	4	5	6	7	8	9	10

What is your level of comfort with picking the hind feet of a mature, trained horse?

1	2	3	4	5	6	7	8	9	10

What is your level of comfort with picking the hind feet of an uncooperative horse?

1	2	3	4	5	6	7	8	9	10

With regard to your personal safety, if 1 represents an older horse that is considered "child safe," and 10 represents a completely untrained horse, what level of horse would you prefer to work with for fun?

1	2	3	4	5	6	7	8	9	10
-	-	•	•	•	•	-	•		

If 1 represents a horse that is considered "child safe" and 10 represents a completely untrained horse, what level of horse would you prefer to work with as a challenge to learn from?

1 2 3 4 5 6 7 8 9 10

### 2019 Student Survey Horse Handling Experience

Name	:				
E-mai	l address:				
Year	of study (check o	ne or specify other):			
	_ Freshman	Sophomore	Junior	Other:	
Expe	rience with horse	s:			
1.	Have you worke	ed with horses before?	No	Yes, number	r of years:
If you	answered no, sk	ip to question #16.			
If	yes, what kind(s)	of horses or activities hav	e you been in	volved with?	
2.	Have you ever w	vorked with foals, yearling	gs or 2-year-ol	lds? No	Yes
3.	If yes, did you te	each them to lead, tie or a	ccept hoof car	e?	
4.	Have you ever w	vorked a horse on a lunge	ine?		
5.	If yes, have you	ever taught a horse to lun	ge?		
6.	How appealing i	s it to you to work with y	oung horses th	hat have had mini	mal handling?
		Appealing	Neutral ab	out it	Not appealing
	ne questions 7-15 ubject.	give the best answer, or	indicate that	you are not exp	erienced with

7. Based on the diagram, what side of the horse do you stand on in comparison to the blacksmith(**X**)? Label your location on the diagram by writing "me" in the location.

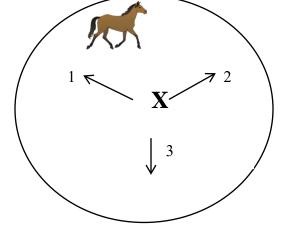
 $X \ {
m Blacksmith}$ HUNIN .

8. Have you ever had a paying job working with horses? If yes, describe your assigned duties.

9. On the diagram below, label with an "X" the blinds spots of a horse.



- 10. If you are in a round pen with a horse, in what direction would you step to get the moving horse to stop?
- 1
- 2 3



- 11. Using the same round pen diagram above, in what direction would you step to increase the speed of the horse?
- 12. Under most conditions, when leading a horse, where should you be positioned?
- \_\_\_On the left side, slightly ahead of the horse
- \_\_\_On the right side, slightly ahead of the horse
- \_\_\_\_On the left side, between the horse's eye and its shoulder
- \_\_\_\_On the right side, between the horse's eye and its shoulder
- \_\_\_\_On the left side, even with the horse's head
- \_\_\_On the right side, even with the horse's head

13. What is the difference between a halter and a bridle?

14. You are asked to turn out 2 horses into a paddock that is 500 feet away. You are told that Goose is dominant over Reba. What will you do and why?

15. It is commonly recommended that when turning horses out, you should turn them toward the fence before releasing them. Explain the reasoning for this recommendation.

16. What equine-related skills would you like to learn while you are a student at UK?

17. If you have comments or additional information, please write them here.

### 2020 Student Survey EQM 105 Horse Behavior and Handling

Name:	
E-mail address:	
Lab day:	
MondayTuesdayWednesdayThursdayFrie	lay
Regularly scheduled lab start time:	
10:0012:002:00	
Year of study (check one or specify other):	
FreshmanSophomoreJunior Other:	
Experience with horses:	
Have you worked with horses before? No Yes, number of years:	
If yes, what kind(s) of horses or activities have you been involved with?	
Have you ever worked with yearlings or 2-year-olds? No Yes	
• If yes, did you teach them to lead, tie or accept hoof care?	
If yes, did you enjoy the experience?	
Have you ever worked a horse on a lunge line?	
If yes, have you ever taught a horse to lunge?	
How appealing is it to you to work with young horses that have had minimal handling?	
Appealing Neutral about it Not appealing	
Do you have a class scheduled <i>before</i> your lab session? Yes No	
If yes, what class is it and what time is it finished?	
Do you have a class scheduled <i>after</i> your lab session?YesNo	
If yes, what class is it and what time does it start?	

#### Name \_\_\_\_\_\*\*\*student\*\*\*

Topic\_

#### Rubric for grading the Contentious Topic Paper in Equine Industry Issues

**Topic choice** – up to 5 pts (5 - interesting topic that qualifies as a contentious topic in regards to the equine industry; 3 - relevant topic that involves some pro & con aspects; 1 - topic is equine industry-related, but does not really qualify as a contentious topic related to equine industry issues)

\_\_\_\_\_ Comments:

**Research on the topic/use of referenced literature** – up to 5 pts (5 – research is thorough and representative of both pro and con sides of the issue; it is presented in a consistent format throughout the paper; balanced approach to using refereed materials <e.g. refereed articles> and opinion-based materials <e.g. blogs written by trainers>; 3 – evidence of research, but lacking in thoroughness or lacking in a representative balance between pro and con points; 1 – scant evidence of research and/or biased research toward just one perspective and/or mainly based on student's own opinions.

#### \_\_\_\_\_ Comments:

**Level of interest achieved** – up to 5 pts (5 – paper is interesting to read and has a pleasant flow of ideas; 3 – paper has some interesting aspects; 1 – paper lacks in providing an interesting perspective and/or flow is choppy)

\_\_\_\_\_ Comments:

**Completeness** – up to 5 pts (5 – major points relevant to chosen topic are articulated and given an appropriate level of coverage in the paper...1 – only a few of the most relevant points have been covered)

#### \_\_\_\_\_ Comments:

**Organization** – up to 5 pts (5 – paper has a logical organization for covering the subtopics relevant to the chosen issue, there is an obvious introductory paragraph and an obvious concluding paragraph...1 – paper has a scattered flow)

\_\_\_\_\_ Comments:

Accuracy – up to 5 pts (5 – student has correctly interpreted the major points related to their chosen topic and has appropriately sifted through relevant literature...1 – paper has multiple false or misleading statements presented)

\_\_\_\_\_ Comments:

**Grammatical correctness** - up to 5 pts (5 – spelling, punctuation, sentence structure, verb tense, use of possessives, word choice, etc. is at or near 100% correct...1 – paper has significant issues with grammatical correctness; significantly lacking in editing) IF THERE ARE SERIOUS FLAWS/NUMEROUS MISTAKES IN THIS PART OF THE RUBRIC, YOUR SCORE MAY REFLECT MORE THAN 10% OF YOUR GRADE BEING INFLUENCED

\_\_\_\_\_ Comments:

**Visual support (e.g. relevant pictures, graphs, tables)** – up to 5 pts - can be from your references (be sure to cite appropriately) or can be developed on your own (please add a note with your first initial and last name below the picture or graph – e.g. (C. Heleski))

#### Comments:

Adherence to formatting – up to 5 pts (5 – margins are standard & consistent <usually 1" x 1">, font is easily legible & consistent throughout <either 11 or 12 size Spacing can be 1 ½ lines or double spacing. If double spaced, do not double up between paragraphs. ...1 – more than 1 aspect of formatting was not followed. Students will have option between one ~2500 word (7-10 page minimum) or two ~1250 word (5 page minimum) documents

#### \_\_\_\_\_ Comments:

**Student's own summary opinion** – up to 5 pts (5 - student has relied upon the references and perhaps synthesized with their own experiences to come to a logical opinion based on their paper for their actual conclusion on the topic...)...1 – student does not seem to utilize their references to arrive at their opinions; only 1 perspective was considered; student's opinion does not appear logical with the facts presented.

#### \_\_\_\_\_ Comments:

**Reference page/Literature cited** – up to 5 pts (5 – <u>one consistent format has been chosen</u>, e.g. JAS or AABS (see above), scientific journal style) or MLA or other. If the topic has refereed literature available, at least 2 refereed sources should be listed. For most topics, refereed literature is preferred to opinion-based literature. ...1 (inconsistent reference styles have been used; less than minimum relevant references; refereed literature was available but only opinion-based material was used.) ADDITION - If doing 1 paper: minimum of 4 refereed references, minimum of 2 "non" refereed articles. (If doing 2, roughly split those numbers.) There are a few topics that will lend themselves to mainly refereed style references; there are a few topics that will lend themselves to mainly non-refereed style references. If either of those two categories apply to you, please check in with Dr. Heleski

\_\_\_\_\_ Comments:

## EQM 305 - Interview Rubric

Name:	Date:
Category	Comments
First Impression	
Greeting/Hand shake	
Introduction/body language	
<b>Responses to questions</b>	
Knowledge relayed	
Quality of information	
Demonstration of skills or attributes desirable for the position	
Communication Skills	
Proper grammar/language	
Appropriate volume	
Confident	
Sincere	
Professionalism	
Dress/appearance/grooming	
General Professionalism Appearance	

### EQM 305 - Interview Rubric

Would you request a second interview and/or hire this individual?

What areas of improvement would you suggest for the individual?

**Additional Comments:** 

#### EQM 305 Interview Rubric

Please circle the description of the interviewee on how you feel he/she has done during the interview today.

- 1- Below average
- 2- Slightly below average
- 3- Average
- 4- Slight above average
- 5- Above average

# EQM 305: Scientific PowerPoint Evaluation Rubric

Student Name: Topic:

Score:

This analytic rubric is used to verify specific tasks performed when producing a PowerPoint presentation. If the task has been successfully completed, all points are awarded. No points are awarded if the task is not complete.

Category	Scoring Criteria	Points	Teacher Evaluation
Title Slide 5 points	This slide features the title of the presentation and includes the author's name. A graphic or picture is included that relates to the most important concept of the presentation. (The title should be the largest font on the slide)	5	
Introduction Slide 5 points	This slide provides a thesis statement that makes the research topic clear.	5	
Report of Research	Scientific terms and concepts are properly used.		
/Backgro und Informati on 15 points	Student draws upon current research and industry information to select and present information. Student has synthesized their researched information into logical understanding of an important local, or national or global equine issue.		
	Research findings are presented in the student's words, not "cut and pasted" from research references.		
Conclusion Slide 5 points	This slide ties the total presentation to the thesis statement.	5	
Bibliography Slide 5 points	This slide shows all research references used for the presentation. (Make a bulleted list of the references.)	5	
Slide	Font size makes each slide easily read from a distance. ( <i>Remember, PowerPoint is meant to be viewed</i> from a distance, not sitting in front of the computer. Don't try to put too much information on one slide.)	5	
Composition 15 points	Color combinations make the information easy to read. (Font should stand out against the background.)	5	

Graphics or pictures add to the impact of the slide. (Graphics should be used in support of information, not in place of it.)	5		
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Presentation Style 25	Voice level, tone, inflection, posture; should be informative yet conversational; Is the presenter at ease? Does he/she make eye contact? Does he/she appear comfortable with their topic?	25	
Blending of science and ethics 10	Provides an ethical framework for developing their science-based argument. Recognizes that value systems affect the weighting of evidence. = 10 No acknowledgement of differing perspectives that are used to identify and weight scientific evidence. 0	10	
Time 15	7:00-8:00 minutes = 15 points Up to 60 sec short or long = -5 61-120 sec short or long = -10		
Score	Total Points	100	

Comments:

# Internship Showcase Poster Rubric and Evaluation

	Content of professional poster					
<u>Content</u> Category	Description of category	Total points available	Total points earned	Evaluator comments		
Abstract	Concise summary of what was done and what was learned. Include type of business, organization, and farm or industry segment, mission of business/organization or farm and services offered.	10				
Description of Responsibilities and Activities	Summary of the major responsibilities and activities during the internship.	20				
<u>Student</u> <u>Professional</u> <u>Growth Goals</u>	List of the SMART goals with supervisor prior to the internship. Why did you pursue this internship?	20				
Evaluation of applied course content from EQM Program	How did information you learned in your undergraduate course work help prepare you or work you through the internshipwhat are specific class content, skills or courses were applied during the internship? What do you want more of?	20				
<u>Project</u> <u>Development</u> <u>or Issue</u> <u>Analysis</u>	A brief discussion of the project development plan or issue analysis. Students could choose to develop a project for their placement and leave a mark or if not applicable for some they could choose to do an issue analysis on a specific issue facing that specific career or segment and write a report on ways to address the issue within our industry. **See project development/issue analysis assignment	40				
Professional Growth Goal Outcomes	Evaluation of the final goals including what the outcomes of those goals include. What did you learn about the industry, the business, organization, farm, the career in general and yourself as a professional.	20				
Total Points:	/130 points availab	ole		1		

# **Internship Showcase Poster Rubric and Evaluation**

	Quality of poster and visual display						
Topic	Description of expectation	Total points available	Total points earned	Evaluator Comments			
<u>Headlines</u>	Headings clearly stated and spaced.	5					
<u>Photos</u>	Photos are attractive (size and colors) and support topic of the poster.	10					
<u>Spelling and</u> grammar	Poster is free of spelling and grammar errors.	10					
Structure of information	Information is organized in a clear, logical way. It is easy to anticipate the next panel.	10					
Font formatting	Font formatting carefully planned to enhance readability and content.	10					
<u>Overall</u> professional appearance	Poster has a good overall professional appearance, is easy to follow, read and is clearly presented professionally.	25					

**Total Points:** 

/70 points available

**Total Poster Points** 

/200

# Internship Showcase Poster Rubric and Evaluation

	Delivery of poster – showcase presentation						
Topic	Description of expectation	Total points available	Total points earned	Evaluator Comments			
<u>Time</u>	Presented poster within ideal 6-8 minute time frame.	20					
Poise and confidence	Confident in delivery and internship experience, professional tone.	15					
Body language	Presented with appropriate eye contact, posture and gestures.	15					
<u>Content of</u> <u>explanation</u>	<ul> <li>Able to explain overall project.</li> <li>Link coursework and future career goals to internship experience:</li> <li>Abstract</li> <li>Description of Responsibilities and Activities</li> <li>Student Professional Growth Goals</li> <li>Evaluation of applied course content from EQM Program</li> <li>Project Development or Issue Analysis</li> <li>Professional Growth Goal Outcomes</li> </ul>	30					
<u>Professional</u> <u>attire</u>	Professional dress and attire (no jeans, holes in clothing and etc. Should be dressed in business casual/professional style clothing.	20					

**Total Points:** 

#### SLO 3C - Communication

Delivery of poster – showcase presentation					
Торіс	Description of expectation	Total points available	Total points earned	Evaluator Comments	
<u>Time</u>	Presented poster within ideal 6-8 minute time frame.	20			
Poise and confidence	Confident in delivery and internship experience, professional tone.	15			
Body language	Presented with appropriate eye contact, posture and gestures.	15			
<u>Content of</u> <u>explanation</u>	<ul> <li>Able to explain overall project.</li> <li>Link coursework and future career goals to internship experience:</li> <li>Abstract</li> <li>Description of Responsibilities and Activities</li> <li>Student Professional Growth Goals</li> <li>Evaluation of applied course content from EQM Program</li> <li>Project Development or Issue Analysis</li> <li>Professional Growth Goal Outcomes</li> </ul>	25			
Professional attire	Professional dress and attire (no jeans, holes in clothing and etc. Should be dressed in business casual/professional style clothing.	15			
Overall poster quality	Overall quality of poster (headlines, photos, font, structure, and spelling/grammar)	10			

**Total Points:** 

### EQM 399 Supervisor Evaluation

### 1.Your Full Name

### 2.Intern's Name

3.Please answer the following questions on a scale of 1-5 (One being strongly disagree, Five being strongly agree)

	Strongly Disagre		eeNeutra	alAgree	Strongly e Agree	Not Applicab
The intern expresses a willingness to learn.	0	0	0	0	0	0
The intern is hard working.	0	0	0	0	0	0
The intern is exhibiting professionalism.	0	0	0	0	0	0
The intern is reliable.	0	0	0	0	0	0
The intern is timely in getting to work on time and leaving at the appropriate time.	0	0	0	0	0	0
The intern completes tasks in a timely manner.	0	0	0	0	0	0
The intern is able to verbally communicate with me as the supervisor.	0	0	0	0	0	0
The intern is able to verbally communicate with colleagues, customers, clients (etc.)	0	0	0	0	0	0
This intern is a good fit for this position and should continue moving forward to complete the internship.	0	0	0	0	0	0
The intern has collaborated as a part of a team.	0	0	0	0	0	0
4.Please answer the following questions on a scale of 1-5 disagree, Five being strongly agree)	5 (One b	eing s	strong	ly		

 Strongly
 Strongly
 Strongly
 Not

 DisagreeDisagreeNeutralAgree
 Agree
 Applicab

 The intern has displayed adaptability traits and is able to adapt well
 O
 O
 O
 O
 O
 O

5. What concerns do you have about the intern thus far?

6.What concerns do you have about the internship experience thus far?

7.What areas of weakness do you see in this student that should be addressed during this internship experience?

8.Any other comments or questions pertaining to the intern at this time.

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		Class	room Debate Rubric			
Criteria	5 points	4 points	3 points	2 points	1 point	Total Point
Respect for Other Team	All statements, body language, and responses were respectful and were inappropriate language	Statements and responses were respectful and used appropriate language, but once or twice body language was not	Most statements and responses were respectful and in appropriate language, but there was one sarcastic remark	Statements, responses and/or body language were borderline appropriate. Some sarcastic remarks	Statements, responses and/or body language were consistently not respectful	
Information	All information presented in this debate was clear, accurate and thorough	Most information presented in this debate was clear, accurate and thorough	Most information presented in the debate was clear and accurate, but was not usually thorough	Some information was accurate, but there were some minor inaccuracies	Information had some major inaccuracies OR was usually not clear	
Rebuttal	All counter-arguments were accurate, relevant and strong	Most counter-arguments were accurate, relevant, and strong	Most counter-arguments were accurate and relevant, but several were weak	Some counter arguments were weak and irrelevant	Counter-arguments were not accurate and/or relevant	
Use of Facts/Statistics	Every major point was well supported with several relevant facts, statistics and/or examples	Every major point was adequately supported with relevant facts, statistics and/or examples	Every major point was supported with facts, statistics and/or examples, but the relevance of some was questionable	Some points were supported well, others were not	All points were not supported	
Organization	All arguments were clearly tied to an idea (premise) and organized in a tight, logical fashion	Most arguments were clearly tied to an idea (premise) and organized in a tight, logical fashion	Nost arguments were clearly tied to an idea (premise) and organized in a tight, logical fashion	Most arguments were clearly tied to an idea (premise) and organized in a tight, logical fashion	Most arguments were clearly tied to an idea (premise) and organized in a tight, logical fashion	
Understanding of Topic	The team clearly understood the topic in depth and presented their information forcefully and convincingly	The team clearly understood the topic in depth and presented their information with ease	The team seemed to understand the main points of the topic and presented those with ease	The team seemed to understand the main points of the topic, but didn't present with ease	The team did not show an adequate understanding of the topic	
			•		Total Points:	Ì

	EQM 490 White Paper Assessment Rubric							
Parameter	Total Points Possible	Excellent	Good	Average	Fair	Poor		
Structure	25	History/Background, Relevant parameters and data, Conclusion(s)/Recommendations.	Proper sections and outlines the issues, parameters, and a recommendation, but does not contain enough detail.	Sections are either too brief or contains paragraphs that have not been well- developed.	Lacks clarity and has incomplete sections, limited facts and detail, does not clearly explain the issues, and does not articulate an analysis or recommendation.	Entire sections are missing and the white paper lacks detail and not well explained.		
Organization	25	a dramatic call for action so that the reader knows that the issue is serious and demands investigation. The sources are related and	Effective introduction and conclusion that is engaging to the reader. Sources follow a logical sequence.	Simple introduction and conclusion. Sources are linked in a logical manner.	Ineffective introduction and conclusion, OR, one is missing. Sources are strung together in an unorganized manner.	No introduction or conclusion is included. Hard to follow.		
Position	25	Clarity of position, uses at least six sources of different types (as appropriate) to argument, effective use of primary data, logical analyses.)	Position clearly stated, but external sources/data are not optimally linked to position/argument, summary and analysis are limited.	Argument is not fully defended with evidence from sources. Quotations are used, but do not best support argument. Not all quotations are summarized.	Argument is not defended with evidence. Quotations are used, but not summarized in students own words.	Student team does not state their argument. No quotations used to support argument.		
Established Knowledge and External Data	25	all four (or more) sources used.	Student identifies and notes	Student identifies and notes the viewpoint of two sources used.	Student identifies and notes the viewpoint of one source.	Student does not identify the viewpoint of any source.		
Mechanics	15	No spelling errors. Accurate punctuation and	Less than 2 spelling errors. No punctuation, grammar or capitalization errors.	3-5 spelling errors. 1-2 punctuation, grammar or capitalization errors.	6 or more spelling errors. 3-5 errors on punctuation and capitalization. 3-5 grammar errors.	7 or more spelling errors. More than 6 punctuation, capitalization and grammar errors.		
Citation of External Sources	15	documented according to MLA format.	At least 3 resources used and documented on "Works Cited" page according to MLA format.	2 resources used and documented on "Works Cited" page.	One resource used and documented, however, no "Works Cited" page is included.	Zero resources listed or quoted.		

### ASC 320 Lab Final Practical FRIDAY Station #1 – Farrier Tools 10 Points

Name:

Identify the following items and explain what they are used for (2 points each).

Name (1 point)	Purpose (1 point)
A.	
В.	
С.	
D.	
Е.	

Tools that the students have to identify include: Hoof knife Rasp Driving hammer Hoof tester Shoe pull-offs Hoof nippers Crease nail cutter Clinch cutter

### ASC 320 Lab Final Practical FRIDAY Station #2 – Concentrate Feeds 10 Points

#### Name:

Answer the following questions about the concentrates at this station. Use the letter labels to identify them in your answers.

1.) Judging from the information on the feed tags labeled A and B, which of these two feeds is lower in energy? Why? (4 points)

- 2.) Identify feedstuffs C, D, E and F. (4 points)
  - C. D. E. F.
- 3.) Which of these two feedstuffs (G or H) is higher in starch? (2 points)

### ASC 320 Lab Final Practical FRIDAY Station #3 - Hays 10 Points

#### Name:

#### PART 1

Answer the following questions about the hay at this station. Use the letter labels to identify them in your answers.

1.) Name the predominant plant species in hays A, B, C and D. (4 points)

A	В
C	D

2.) Regarding hays C and D, which hay is the most mature? What characteristics led you to this conclusion? (2 points)

#### PART 2

3.) Examine the hay analyses labeled E and F, making comparisons in the column showing the DM basis results. Both are alfalfa-grass mixes. Which one (E or F) is the more mature? Explain what parts of the analysis support your answer. (4 points)

E or F?

Why?

### ASC 320 Lab Final Practical FRIDAY Station #4 – First Aid 10 Points

#### Name:

Using the supplies provided, provide first aid to the injury on the horse's leg. Assume that it is fairly fresh and is bleeding profusely. Tell the person proctoring the station what you will do prior to dressing the wound and what you will do to control bleeding.

Score: \_\_\_\_\_

Comments:

Here, the station judge is looking for an approach that includes stopping the bleeding first (prioritizing that over cleaning or dressing the wound) and saying that if it bleeds through the bandage you add another bandage instead of taking off the soaked one and starting fresh (this disturbs the clot). The student then proceeds to wrap the cut (a piece of tape on the leg of the life-size plastic horse with (in this order) a nonstick pad, stretch gauze, combiroll cotton and brown gauze. S/he may also mention finishing off the wrap with Elasticon or Vetwrap.

### ASC 320 Lab Final Practical FRIDAY Station #7 BCS and Weight Estimation 20 Points

#### Name:

1. Determine the body condition score (BCS) of this horse using the Henneke 1-9 scale. (10 points)

Score: \_\_\_\_\_

Comments (if any):

2. Using the measuring tape and the calculator provided, estimate this horse's weight. Be sure to ask for help if you need assistance holding the tape. (10 points)

Measurements:

Calculation:

Estimated weight: \_\_\_\_\_

Comments (if any):

### ASC 320 Lab Final Practical FRIDAY Station #6 - TPR 20 Points

#### Name:

Take the pulse or heart rate, and respiration rate of the horse in the stall. If the horse is uncooperative and you are unable to determine one of these parameters, explain to the proctor how you would do this.

#### Pulse/ Heart Rate (10 points):

Pulse/Heart Rate:

• Is this within the normal range? What is the normal range for an adult horse at rest?

#### **Respiration** (10 points):

Resp rate: \_\_\_\_\_

• Is this within the normal range? What is the normal range for an adult horse at rest?

### ASC 320 Lab Final Practical FRIDAY Station #8 – Pasture Evaluation 10 Points

#### Name:

Answer the following questions about the forages and weeds found inside the grid.

1.) Identify the plants corresponding to the letter on the stake inserted in the ground next to it. (2 points each)

A.

B.

C.

D.

2.) What percentage of this grid is comprised of weeds and bare soil? (2 points)

### ASC 320 Lab Final Practical FRIDAY Station #5 - Fecal Egg Counts 10 Points

Name:

Microscope number: \_\_\_\_\_

Determine the fecal **<u>Strongyle</u>** egg count of the specimen in the McMaster's slide. Be sure your microscope is focused on the green lines. Count only Grid 1 and use the provided value for Grid 2 to perform your calculation.

\_\_\_\_\_

#### **Count:**

Grid 1 (on left): \_\_\_\_\_

Grid 2 5

Total:

Estimated eggs per gram (show calculation):

# EQM 105 Lab Practical Score Sheet 50 Points

Student:		Horse:	
In hand (15 possibl	le points):		Judge initials:
Walk, pivot 180°	(5 points)		
Stop and stand 5 sec	e (5 points)		
Back 3 steps	(5 points)		Total in hand:
Comments:			
<u>Turnout (10 possib</u>	le points):		Judge initials:
Mane: 6" length, na	tural appearance	e, coat clean and shiny (	6 points)
Hooves picked and	free of mud (4	points)	
			Total for turnout:
<u>Haltering, knot tyi</u>	ng (10 possibl	e points)	Judge initials:
Halter a horse as yo	u would in a pa	asture (5 points)	-
Tie a functional qui	ck-release knot	(5 points)	-
			Total for halter/knot:
Round pen (15 pos	sible points):		Judge initials:
In one direction: wa	lk, trot, canter	(5 possible points)	
Figure 8 at the walk	(5 points):		
Stop and back 3 step	os (5 points) _		
Comments:			
			Total in round pen:

Grand Total:

### **Professional Growth Plan Rubric**

Performance	Level 4	Level 3	Level 2	Level 1
SMART Goal	The goal is very specific and strategic in nature. It provides information that is clearly measurable. Considering the goal, the context of the goal and the people involved, the goal is considered attainable.	A goal is described but is missing one of the five SMART elements. S-Specific M-Measurable A-Attainable R-Relevant T-Timely	A goal is described but is missing two or more of the five SMART elements.	No SMART goal described or the goal described is a process goal, not focused on teacher or student learning results.
Strategies	The strategies describe with precision the steps necessary to advance the process of improving the goals/outcomes. The strategies identify who or what will be responsible and who it will entail.	The strategies describe actions that will be undertaken. While many may be listed, it is not clear as to which strategy may be linked with which target. There is no indication of or confusion as to who will be responsible for each of the actions.	The strategies are very generic in nature.	No strategies were listed.
Preflective	The preflection provides a detailed overview of the student goals and has a clear and specific vision for their careers based on the following: personality type, strengths, enneagram, career visions and preferences.	The preflection is limited in scope and the student does not have a clear and specific vision for their careers based on the following: personality type, strengths, enneagram, career visions and preferences.	The preflection is generic or not specific to the student experience.	There is no or limited preflection present.
Comments for technical information:			·	
Comments for individual student growth:				

RESUME RUBRIC							
	5	4	3	2	1		
Overall Appearance/Style	Fills page, not crowded. Consistent in font style and layout. Information is clear. Centered on page and good choice of font and type size. Structure has clear purpose.	Consistent in style but has some uneven white space or does not fill up a page. Important information may not stand out clearly to reader.	Unnecessarily run onto second page. Appearance may lack appropriate use of bold/italics, font, bullet points or margins.	Format is not appealing. Information is not laid out in a clear format.	Does not draw attention and has lack of structure.		
Category Selection	Choice of subject headers is excellent. Most important items are listed on the top half. Categories selected include enough information within each to substantiate the need for the heading.	Category selection is well defined and order of information on page is good.	Categories may need to be structured differently to be more effective.	Lacking appropriate categories or category selection is unclear	Resume does not include subject headers		
Experience	Appropriate experience listed with organization name, title, dates, and location. Sentence fragments are concise, direct, and accomplishment oriented; strong verbs and appropriate verb tense is used. Results are quantified. Listed in correct chronological order	Appropriate experience listed. Sentence fragments are used, but descriptions may not be result oriented or verbs may be weak.	Too much or too little experience is included. Verbs may be weak and verb tense may be incorrect. Descriptions may not be in the form of bullets. Important information may be missing.	Descriptions are not detailed and offer no illustration of what was done.	No type of experience (work, volunteer, leadership or other) is listed.		
Education	Degree and major are listed with graduation month and year, name and location of school. If GPA is listed it is over a 3.0. Honors and Scholarships are included here or in their own section if more appropriate. Important information is highlighted.	Degree is listed with necessary information but section could be expanded. Most important information does not stand out.	Additional information may need to be included to increase length of resume or too much information may be included.	Section lacks information and format.	Section is not included or crucial information is missing.		
Typos/Spelling Errors	No or extremely minor errors (Capitalization, spelling, grammar).	Few errors, shows but consistent pattern. Information may be abbreviated when it should be spelled out.	Shows a persistent pattern of error or contains a number of varied mechanical errors	Mechanical errors are so widespread that they are distracting	Difficult to read because of mechanical errors.		
Additional Sections: Ex. Skills/Activities	Included additional section with relevant, well organized, and easy to understand information. If appropriate, leadership roles and related activities are indicated.	Included additional section with relevant information, and minimal flaws; skills or activities may not be properly defined.	Additional section is missing key information.	Included additional section, but information is weak or irrelevant.	Additional sections are missing.		

# Appendix Core Area 2.n

SLO	Student Learning	Course	Assessment tool/	Benchmark	Timing of
#	Outcome		Supporting Documents		Assessment
1	Students will define, analyze <u>EEQs</u> : Learners, Thinkers and Prob				
1A	Students will define and analyze industry terms, practices, and topics at various levels.	EQM 101 – Pre and post test EQM 105 and 351 and ASC 310 and 320 – Exam questions given each semester	EQM 101 – Pre and post test – baseline data use EQM 105 and 351, ASC 310 and 320 – Exam questions on knowledge Category inventory list for sub topic areas and link to test questions Excel document with benchmark questions will be created.	EQM 101In each semester, 80% of students will earn a score of 80% or greater on the final exam on a series of questions that were pre-selected by the course instructor and/or assessment committee that reflect the key equine knowledge all students should know graduating from the program.EQM 105, EQM 351, ASC 310 & ASC 320 In each semester, 80% of the students will earn a score of 80% or greater within each class on a series of questions that were pre-selected by the course instructor and/or assessment committee that reflect the key equine knowledge all students should know graduating from the program.	EQM 101 – Beginning and end of Fall EQM 105 – Spring ASC 310 – Both semesters ASC 320 – Fall EQM 351 – Both semesters
18	Students will demonstrate and evaluate equine handling skills and production management practices.	EQM 105 – Skills pre and post test ASC 320 – Lab practical	EQM 105 – Skills pre-test (self- assessment on horse handling) – baseline data use EQM 105 – Lab Practical score sheet ASC 320 – Lab Practical score sheet	In each semester, 80% of students will earn a score of 80% or greater in basic equine handling skills (including leading the horse, grooming and turnout, haltering, knot tying and round pen work) on the EQM 105 lab practical exam. In each semester, 80% of the students will earn a score of 80% or greater in the following pre-selected categories: concentrate feeds, hays, first aid, body condition scores, TPR, pasture evaluation and fecal egg counts on the ASC 320 laboratory practical exam.	EQM 105 – Spring • Beginning – Skills pre-test • End – Practical score sheet ASC 320 – Fall (end)
1C	Students will construct a summative project that draws on current research, scholarship and techniques in the equine industry.	EQM 305 EQM 490 project	Scientific power point rubric - Blue highlighted sections	EQM 305: In each semester, 80% of students or student groups will earn a grade of 80% or greater in the relevant sections of the Scientific Power Point rubric on the final project in EQM 305. EQM 490: In each semester, 85% of students or student groups will earn a grade of 85% or greater in the relevant sections of the Scientific Power Point rubric on the final project in EQM 490.	EQM 305 – both semesters

2	Students will apply their knowledge by synthesizing local, national and/or global issues within the equine industry. <u>EEQs</u> : Thinkers and Problem Solvers Adaptable	EQM 305 – Contentious Topic Paper	EQM 305 Contentious Topic Paper Rubric	EQM 305: In each semester, 80% of students will earn a grade of 80% or greater on the contentious topic paper in EQM 305 using the Contentious topic paper rubric.	EQM 305 – Both semesters
3	Students will communicate <u>EEQs</u> : Communication, Responsib	, ,	I ionally through written, oral and visual mo	l des of communication. (GCCR)	
ЗА	Students will construct a variety of communication pieces to articulate topics within the equine industry.	EQM 305 Power point EQM 399 Poster	EQM 305 Power point presentation rubric EQM 399 Internship poster Rubric and Evaluation – poster content	<ul><li>EQM 305: In each semester, 80% of students will earn a grade of 80% or greater on the Scientific power point presentation in EQM 305.</li><li>In each semester, 80% of students will earn a grade of 80% or greater on the Content and Quality of Visual Display section of the Internship poster rubric.</li></ul>	EQM 305 – both semesters EQM 399 – both semesters (Internship showcase)
3B	Students will construct a variety of professionalism pieces to help prepare them for future careers.	EQM 305: Resumes and cover letters	Resume and cover letter rubrics	In each semester, 90% of students will earn a grade of 90% or greater on each of the resume assignment utilizing the resume grading rubric. In each semester, 80% of students will earn a grade of 80% or greater on each of the cover letter assignment utilizing the resume grading rubric.	EQM 305 – both semesters
		Professional growth plan #1 (EQM 106) and #2 (EQM 399)	Professional Growth Plan Rubrics	<ul><li>In each semester of EQM 106, 80% of students will earn a status of level 2 or greater in their professional growth plan utilizing the Professional Growth Plan Rubric.</li><li>In each semester of EQM 399, 85% of students will earn a status of level 4 on their professional growth plan utilizing the Professional Growth Plan Rubric.</li></ul>	EQM 106 – both semesters EQM 399 – both semesters

		EQM 490: ePortfolio	ePortfolio grading rubric	In each semester of EQM 490, 80% of students will earn a score of 75% or higher on the ePortfolio assignment utilizing the Auburn ePortfolio grading rubric.	EQM 490 – both semesters
3C	Students will present equine and professionalism topics through various oral communication methods.	EQM 305: Power point presentations and mock interviews	EQM 305 Power point presentation rubric EQM 305 Mock interview score sheet	EQM 305 (PowerPoint): In each semester, 80% of students will earn a grade of 80% or greater on the presentation style section of the Scientific Power Point Evaluation rubric in EQM 305. EQM 305 (mock interview): In each semester, 85% of students will earn	EQM 305 – both semesters EQM 399 – both semesters (Internship showcase)
				a rating of average (3) or above (on a 5 point likert scale) on the mock interview rating scale. This will be assessed by the industry professionals conducting the interviews with the students enrolled within the course.	
		EQM 399: Presentation of posters	EQM 399 poster presentation rubric	EQM 399: In each semester, 80% of students will earn a grade of 80% or greater on the poster presentation section of the EQM 399 internship poster rubric.	
4	Students will execute scientifically informed and ethical decisions by utilizing critical thinking,	EQM 305 contentious topics paper	EQM 305 Contentious topics paper grading rubric	EQM 305: In each semester, 80% of students will earn a grade of 80% or greater on the blending of science and ethics section on the Contentious topics paper rubric in EQM 305.	EQM 305 – both semesters EQM 490 – both semesters
	analytical reasoning and/or problem-solving skills.	EQM 490: Small group debates and final project	EQM 490 Debate grading rubric	EQM 490: In each semester, 80% of student teams will earn a rating of average or above on the EQM 490 Group Debate grading rubric. EQM 490: In each semester, 85% of student teams will earn a grade of	
	EEQs: Principled and Ethical Inquirers	EQM 490 Team Project	EQM 490 Final Project Written Paper	85% or greater on the Contentious Topics paper rubric in EQM 490.	
	Students will work effectively in diverse environments as an individual or as a collaborative team.	EQM 490 – Final project written paper and power point presentation	Teamwork assessment tool	EQM 490: In each semester, 80% of students will receive an overall rating of very good or higher on their team contribution component of the teamwork assessment tool for both the written paper and the power point presentation.	EQM 490 – both semesters EQM 105 – Spring only EQM 399 – both semesters
	<u>EEQs</u> : Collaborators Adaptable	EQM 105 Leadership Assignment	EQM 105 Self-Reflection for leadership and teamwork activity with Lissa (Mary)	EQM 105:- NEEDS TO BE CREATED	

EQM 399 Host Evaluation	EQM 399 Supervisor Evaluation	EQM 399: In each semester, 85% of students will receive a rating of 4 or higher (on a 5point scale) for adaptability and collaboration on the EQM 399 Supervisor Evaluation given at the completion of the internship.

## EEQ CERT Self-Assessment University of Kentucky – Equine Science and Management

The horse industry is a dynamic industry that encompasses not only the breeding, raising and training of horses but also the development of activities for the use of the horse in sports and recreation. The industry has a significant economic impact across the U.S. and worldwide.

The four year Bachelor of Science equine science and management undergraduate program involves the study and application of science and business concepts to the horse industry. Additional course work supports learning in areas that aid in breeding and raising horses and marketing the industry. Students come from varied equine backgrounds but have a common interest in the horse. Students have the opportunity to choose an emphasis area in the areas of equine science, equine management and industry or communications and leadership. Regardless of which breed of horse or activity focus students have, equine science and management majors will have the opportunity to combine their interest in the horse with a desire to become active participants in the horse industry.

This self-assessment document will be reflective of opportunities that <u>all</u> of our students have access to. For example, courses discussed will only include the core Major Requirement courses that all students in our major are required to complete as part of our curriculum. The course curriculum sheet has been added to the end of this document for reference.

### CATEGORY 1 - Graduate Preparation

This category addresses the outcomes of graduates' preparedness regarding the EEQs. It also addresses how the program (or institution) provides <u>work-relevant</u> learning opportunities and documents graduates' achievement of the EEQs.

In order to best evaluate the equine science and management program through the lenses of Category 1 – Graduate Preparation; the committee felt it better suited to combine 1A-1-3 & 1B into tables that were reflective of each EEQ. Therefore, the tables below articulate the self-evaluation of Category 1 through the reflection of the practices in place, evidence available to support each EEQ and the self-assessment of strengths and areas of improvement in relation to the EEQ.

In reference specifically to 1A-2 & 1A-3, the program needs to establish benchmarks for student proficiency in each of the EEQs. As part of the action plan an overall program assessment plan will be established which will identify benchmarks, levels of proficiency and assessment tools in order to measure student growth.

#### Communicators

1A-1: The program addresses and develops each of the Essential Employability Qualities.

1A-2: The program articulates the required <u>exit proficiencies</u> for each of the EEQs.

1A-3: The program assures that each graduate meets the required <u>exit proficiencies</u> for each of the EEQs.		
1B: All students have multiple opportunities to apply learning in <u>work-relevant contexts</u> (such as but not limited to: applied projects, capstones, simulations, case studies, internships, fieldwork, experiential activities, work-site projects, etc.)		
Practices in place that address this criterion: Assignments and discussions within the following courses: EQM 106 – Intro to Equine Careers EQM 305 – Equine Industry Issues (Graduate Composition and Communications Requirement ((GCCR)) course) EQM 396 – Equine Education Abroad EQM 399 – ESMA Internship EQM 490 – ESMA Senior Capstone Networking with industry professionals - • Equine Career Fair • Guest lecturers in several classes	<ul> <li>Evidence available that illustrates how the program meets this criterion:</li> <li>EQM 106 - Guest speaker host project (rubric used)</li> <li>EQM 305 - <ul> <li>Writing and presentation rubrics used for grading</li> <li>Mock interviews conducted using grading rubric</li> <li>Writing samples published in program newsletter, Wildcat Canter, with bylines and editing process</li> </ul> </li> <li>EQM 399 - <ul> <li>Poster and presentation rubrics</li> </ul> </li> <li>EQM 490 - <ul> <li>Group presentation assessment tool/survey</li> </ul> </li> </ul>	
Self-assessment: What does the program do well in regard to this criterion?	Self-assessment: What might the program need to more effectively meet this criterion?	
Equine Internship Showcase – Students prepare posters and verbally present to external stakeholders and potential employers on their internship project Several opportunities for equine industry integration with students – career fair, guest lecturers, etc. Targeted skill development through course work throughout the progression of the program	Provide more opportunities for diversity awareness and inclusion experiences through course work for more students. This could be done in a variety of required courses and also in workshops/activities offered in an extracurricular setting for EQM students. EQM 396 Equine Education Abroad opportunities are offered each Spring semester, but a very small number of students take part in these. Some ideas to increase these opportunities:	
Multi-modal communication course (EQM 305) focused on equine specific content increasing student engagement. Required by all students starting Fall 2018.	<ul> <li>Require students to develop a poster and present at the internship showcase on their abroad experience</li> <li>Assignments/Explorations based on international equine workforce requirements and opportunities</li> </ul>	

<ul> <li>Cultural immersion opportunities into the Kentucky equine industry (78% of students from out-of-state/country)</li> </ul>
Several of the opportunities are new within the curriculum so only preliminary data has been collected to date. Benchmarks need to be established.

### Thinkers and Problem Solvers

1A-1: The program addresses and develops each of the Essential Employability Qualities.		
1A-2: The program articulates the required exit proficiencies for each of the EEQs.		
1A-3: The program assures that each graduate meets the required <u>exit proficiencies</u> for each of the EEQs.		
1B: All students have multiple opportunities to apply learning in <u>work-relevant contexts</u> (such as but not limited to: applied projects, capstones, simulations, case studies, internships, fieldwork, experiential activities, work-site projects, etc.)		
Practices in place that address this criterion:	Evidence available that illustrates how the program meets this criterion:	
Assignments and discussions within the following courses:	AEC 302 – Create a business and farm plan including a budgeting component	
AEC 302 – Ag Business Management ASC 320 – Equine Management EQM 305 – Equine Industry Issues (GCCR course)	ASC 320 – Case analysis (Quackery Assignment) / Lab assignments	
EQM 399 - ESMA Internship EQM 490 – ESMA Senior Capstone	EQM 305 – Projects based on an analysis of a variety of equine industry related issues	
	EQM 399 – Project development or issue analysis assessment. Rubrics are used.	
	<ul><li>EQM 490 – Industry issue related group project</li><li>Group project assessment tool/survey</li></ul>	
	Course curriculum mapping documents and syllabi	
Self-assessment: What does the program do well in regard to this criterion?	Self-assessment: What might the program need to more effectively meet this criterion?	
Variety of curriculum and course work due to the multidisciplinary nature of the program.	Inventory assignments and assessments in a more formal way.	
Students have several hands-on learning experiences through lab participation – ASC 101, EQM 105, ASC 310, ASC 320, AEC 302	Vary the depth of the learning in some courses so they build upon one another	

Students are required to participate in an	Create assessment tools that answer what we
Academic Enrichment Experience – EQM 399	are trying to measure more effectively.
or EQM 396	Establish benchmarks for data as needed.
	Add varied lenses to concepts and topics (For example: integrate geography and diversity of the equine industry)

Inquirer

1A-1: The program addresses and develops ea	ch of the Essential Employability Qualities.	
<ul> <li>1A-2: The program articulates the required <u>exit proficiencies</u> for each of the EEQs.</li> <li>1A-3: The program assures that each graduate meets the required <u>exit proficiencies</u> for each of the EEQs.</li> <li>1B: All students have multiple opportunities to apply learning in <u>work-relevant contexts</u> (such</li> </ul>		
as but not limited to: applied projects, capstone fieldwork, experiential activities, work-site projection		
Practices in place that address this criterion: Undergraduate research opportunities Assignments and discussions within the following courses: EQM 106 – Intro to Equine Careers EQM 305 – Equine Industry Issues (GCCR course) EQM 399 – ESMA Internship EQM 490 – ESMA Senior Capstone	<ul> <li>Evidence available that illustrates how the program meets this criterion:</li> <li>Variety of resources for class content integration and research through analysis of equine industry, social science, veterinary science, economic, and a variety of other topic areas.</li> <li>EQM 106 – Strength Finder Assessment and Reflection assignment for personal inquiry</li> <li># of students participating in 395 courses or extracurricular undergraduate research opportunities</li> </ul>	
Self-assessment: What does the program do well in regard to this criterion? Being an interdisciplinary program has	Self-assessment: What might the program need to more effectively meet this criterion? Increasing student confidence levels on	
created many partnerships and opportunities with several different departments/units on campus for inquiry- based opportunities for students. Some examples of these partnerships include Animal Sciences, Gluck Equine Research Center (Vet Sciences), Ag Economics, Plant and Soil Sciences, Veterinary Diagnostic Lab (VDL), Community	identifying research topics and what research is/importance of it Educate faculty and instructors on inquiry- based teaching methodology with the hope of increasing the use of these methods in classroom instruction	

Leadership and Development, Biosystems and Ag Engineering, UK Healthcare, etc	Offering more opportunities for students to think independently
All incoming students starting Fall 2019 will be required to take EQM 106 and do the Strength Finder Assessment and Reflection to get them to start thinking differently from the start	Development of assessment tools/rubrics for each assignment in courses listed above. Establish benchmarks for data as needed. Better inventory and number of equine students participating in undergraduate research opportunities

#### Collaborator

1A-1: The program addresses and develops each of the Essential Employability Qualities.

1A-2: The program articulates the required <u>exit proficiencies</u> for each of the EEQs.

1A-3: The program assures that each graduate meets the required <u>exit proficiencies</u> for each of the EEQs.

1B: All students have multiple opportunities to apply learning in <u>work-relevant contexts</u> (such as but not limited to: applied projects, capstones, simulations, case studies, internships, fieldwork, experiential activities, work-site projects, etc.)

experiential activities, work-site projects, etc.)	
Practices in place that address this criterion:	Evidence available that illustrates how the program meets this criterion:
Assignments and discussions within the	
following courses:	EQM 105 – Horse and human interactions and
	progress are recorded through electronic journal
EQM 105 – Equine Behavior and Handling	entries via Canvas throughout the semester
EQM 106 – Intro to Equine Careers	
EQM 351 – Equine Health and Diseases	EQM 106 – Host speaker assignment. Assessment tool
EQM 396 – Equine Education Abroad	used to evaluate each team member
EQM 399 – ESMA Internship	
EQM 490 – ESMA Senior Capstone	EQM 396 – Each education abroad experience
	includes a semester long class to build a cohort of
Extracurricular opportunities through equine	students and faculty that will travel abroad together.
related clubs and teams	
	EQM 399 – Internship cohort meetings and showcase (virtual and in person). Internship host/supervisor relationship – Supervisor evaluation and Internship
	Host evaluation
	EQM 490 – Issue based group project. Group project assessment/evaluation tool
	Number of students enrolled in equine related clubs and teams
	Teamwork assessment tool created for use as needed

Self-assessment: What does the program do well in regard to this criterion? Teamwork assessment tool is in place and has been pilot tested to use when needed Offer a variety of equine focused clubs and teams in several disciplines and interest areas Volunteer/Collaborative opportunities are shared with students as industry partners send them via Tuesday Tidbits and Share Point Several opportunities for teamwork/collaboration in current coursework offered	Self-assessment: What might the program need to more effectively meet this criterion?Create a survey to be administered during advising inventorying each student's intra and extracurricular involvementEQM 351 – Team project on an equine health related topic. (rubric needs to be created)Request ESMA clubs/teams rosters from Club Sports each semesterTeaching students the value of teamwork and how to work with others effectivelyFostering a more positive attitude from both faculty and students about the benefits of collaborative work on projects/assignmentsReevaluate teamwork assessment tool to make sure it's measuring what we are wanting it to measure and find ways to incorporate it into the overall assessment planReview journal prompts for EQM 105 to identify collaborative growth more effectivelyCreate an Equine Ambassador program
	Creation of a Collegiate Horsemen's Association chapter to give students not on a club/team other opportunities to choose from Offer leadership trainings for clubs and teams

### Adaptable

1A-1: The program addresses and develops each of the Essential Employability Qualities.

1A-2: The program articulates the required <u>exit proficiencies</u> for each of the EEQs.

1A-3: The program assures that each graduate meets the required <u>exit proficiencies</u> for each of the EEQs.

1B: All students have multiple opportunities to apply learning in <u>work-relevant contexts</u> (such as but not limited to: applied projects, capstones, simulations, case studies, internships, fieldwork, experiential activities, work-site projects, etc.)	
<ul> <li>Practices in place that address this criterion:</li> <li>Ability to apply skills in a variety of settings – education abroad, internship opportunities, jobs/careers, and volunteering.</li> <li>Exposure to industry related opportunities through Tuesday Tidbits newsletter and Equine Student Hub via SharePoint</li> <li>Assignments/assessments in the following courses:</li> <li>ASC 320 – Equine Management</li> <li>EQM 105 – Equine Behavior and Handling</li> <li>EQM 396 – Equine Education Abroad</li> <li>EQM 399 – ESMA Internship</li> </ul>	Evidence available that illustrates how the program meets this criterion: ASC 320 – Lab assignments/skills - pasture improvement plans, body condition scoring, etc. EQM 105 – Horse handling experiences via weekly journaling (self-reporting) EQM 396 – Immersion into different cultures and how well they adapt to this EQM 399 – Supervisor evaluation specifically measures student's ability to be adaptable
Self-assessment: What does the program do well in regard to this criterion? Students are offered a wide variety of industry opportunities year round both inside and outside of the classroom (see examples in Practices and Evidence categories) Geographic location of our program allows for a large number of opportunities for students to choose from Opportunities are communicated with students weekly via Tuesday Tidbits newsletter and information is updated multiple times per week via the Equine Student Hub (SharePoint)	Self-assessment: What might the program need to more effectively meet this criterion? Review journal prompts for EQM 105 to identify and measure adaptability more effectively Create a survey to be administered during advising inventorying each student's intra and extracurricular involvement. Track data to look at changes over time for each student. Integrate more project-based learning into courses instead of just subject matter lectures Find more ways to more effectively measure and assess this EEQ

### Principled and Ethical

1A-1: The program addresses and develops each of the Essential Employability Qualities.

1A-2: The program articulates the required <u>exit proficiencies</u> for each of the EEQs.

1A-3: The program assures that each graduate meets the required <u>exit proficiencies</u> for each of the EEQs.

1B: All students have multiple opportunities to a as but not limited to: applied projects, capstone fieldwork, experiential activities, work-site projection of the project	es, simulations, case studies, internships,
Practices in place that address this criterion:	Evidence available that illustrates how the program meets this criterion:
Coursework and assignments in the following classes - EQM 101 – Intro to the Horse and Horse	EQM 101 – Introduces principles and ethics within the equine industry (see course schedule on syllabus)
Industry EQM 305 – Equine Industry Issues (GCCR course) EQM 396 – Equine Education Abroad EQM 399 – ESMA Internship EQM 490 – ESMA Senior Capstone	EQM 305 – Reinforces and dives deeper into the issues introduced in EQM 101 (see course schedule on syllabus for list of topics). Students are taught proper research methods (including literature reviews) and how to assess issues in an unbiased way
	EQM 396 – Allows students to be immersed in diverse communities/environments. Photos or presentation from the experience.
	EQM 399 – Works with ethics in the workplace and work based situations through the professionalism module offered. LinkedIn Profiles and headshots.
	EQM 490 – Allows students to apply their knowledge on industry issues and concepts as well using existing research to provide evidentiary support via classroom discussions and group presentations.
Self-assessment: What does the program do well in regard to this criterion?	Self-assessment: What might the program need to more effectively meet this criterion?
Students are exposed to hot button topics and taught how to research and make informed decisions/opinions	Integrate debates into conversations where other viewpoints are respected
Students are knowledgeable horsemen and able to speak confidently about the equine industry and issues related to it	EQM 106 and 399 –Could include more information about ethics and professionalism in the workplace
A recent curriculum mapping exercise helped to identify very targeted approach to analyzing and research issues and ethics	Could integrate more conversations/case studies about the ethics of horse ownership/management into courses such as ASC 320 and EQM 351
	Addressing faculty/staff perception of student's honesty and integrity. Encouraging

faculty/staff to be open minded and reduce existing bias.
Faculty and Staff need to be held to the same standard as students in regards to ethics and being principled to model the way for students and alumni

## Responsible and Professional

1A-1: The program addresses and develops each of the Essential Employability Qualities.			
1A-2: The program articulates the required exit proficiencies for each of the EEQs.			
1A-3: The program assures that each graduate meets the required <u>exit proficiencies</u> for each of the EEQs.			
	1B: All students have multiple opportunities to apply learning in <u>work-relevant contexts</u> (such as but not limited to: applied projects, capstones, simulations, case studies, internships, fieldwork, experiential activities, work-site projects, etc.)		
Practices in place that address this criterion:	Evidence available that illustrates how the program meets this criterion:		
Courses required by ALL students that help address this EEQ –	EQM 106 – Professional growth planning, SMART goals, e-mail and communication		
EQM 106 – Intro to Equine Careers EQM 305 – Equine Industry Issues (GCCR course)	training by hosting guest speaker. EQM 399 –		
EQM 490 – ESMA Senior Capstone Academic Enrichment (Students choose one) EQM 396 – Equine Education Abroad <u>OR</u> EQM 399 – ESMA Internship	<ul> <li>Internship host evaluation is done evaluating the professionalism and responsibility of the student (intern)</li> <li>Students create a Linked In account</li> <li>Students are required to take a professional headshot</li> <li>Internship showcase presentation at the completion of each semester</li> </ul>		
	Professional growth planning (EQM 106 & EQM 399)		
	EQM 305 – Required to create a cover letter, resume and participate in mock interviews		
Self-assessment: What does the program do well in regard to this criterion?	Self-assessment: What might the program need to more effectively meet this criterion?		
Integrate professionalism and responsibility skill set development <b>throughout a student's</b> time in the program	Figuring out a way to make attendance a higher priority for students to attend class		

Pathway to Professionalism infographic has been created to show students, prospective families and stakeholders how we develop these skills within our students	more regularly (I.e. pop quizzes, flipped classrooms, etc.) Find ways to allow students to give input on programming
Staff member assigned to internships and career development areas	Create more leadership development opportunities for students
	Development of E-Portfolio via Canvas for each student
	Create an industry networking dinner with an etiquette component?
	EQM 490 – Professionalism and attire grade should be part of final presentation grade. Rubric needs to be developed.
	Professionalism series to be held in conjunction but prior to the Equine Career Fair in Fall.

#### Learners

1A-1: The program addresses and develops each of the Essential Employability Qualities.

1A-2: The program articulates the required <u>exit proficiencies</u> for each of the EEQs.

1A-3: The program assures that each graduate meets the required <u>exit proficiencies</u> for each of the EEQs.

1B: All students have multiple opportunities to apply learning in <u>work-relevant contexts</u> (such as but not limited to: applied projects, capstones, simulations, case studies, internships, fieldwork, experiential activities, work-site projects, etc.)

Practices in place that address this criterion:	Evidence available that illustrates how the program meets this criterion:
Professional development and growth planning through self-awareness and reflective assignments (EQM 106 and 399)	Professional Growth plan – grading rubric created
Equine Alumni Affiliate Network chapter	Connection of alumni at existing student- based events being offered. Inviting them to guest lecture within equine courses.
Self-assessment: What does the program do well in regard to this criterion?	Self-assessment: What might the program need to more effectively meet this criterion?
Alumni engagement	Better communicate opportunities to students for seminars, short courses, extension and
Geographically located in the hub of all things equine (industry opportunities are endless)	outreach opportunities and industry networking

Students are offered free registration/admission to industry and UK related events	Lead conversations with industry groups (i.e. KENA, KTFMC, etc.) to obtain funding, student membership/rates, etc. To increase student participation within industry related professional and equine skill development sessions/meeting. And to help establish young professional rates for industry groups
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# 1C: The program (or institution) provides all students with <u>verifiable records</u> that document their achievement of the EEQs.

Criterion 1C: The program (or institution) provides all students with <u>verifiable records</u> that document their achievement of the EEQs.	
Practices in place that address this criterion: The current assessment plan for Equine Science and Management has included in the past: Equine ARPAS Knowledge Assessment (Pre and Post)	Evidence available that illustrates how the program meets this criterion: Baseline data has been collected for several years of knowledge gained and additional skills learned via the Senior Capstone evaluation
Senior Capstone Final Project Assessment California Critical Thinking Test (Pre and Post) Currently the overall assessment plan is being overhauled to find better ways to measure students' progress and skills learned throughout their time in the program. Student Learning Outcomes have been established Separate assignments are given in a few classes, but they are not collected a whole	
Self-assessment: What does the program do well in regard to this criterion? Baseline data has been collected and changes are in the works in other classes, but nothing has been finalized yet	Self-assessment: What might the program need to more effectively meet this criterion? Baseline data has been collected, but is not telling the complete story of our graduates regarding the EEQs Ideas to make this area stronger -

<ul> <li>Establish more measurable Student Learning Outcomes that also include reference to EEQs</li> <li>Map EEQs to student learning outcomes</li> <li>Overhaul the ESMA assessment plan</li> <li>E-Portfolios</li> <li>Semester advising survey information</li> <li>Graduate profile</li> </ul>
Create an assessment committee for Equine Science and Management instead of one person doing assessment for the program
Gain input from faculty/staff teaching within the program and provide additional training to encourage them to assist in the data collection process
Create annual calendar/task list for new assessment plan once created to keep everyone on task

## CATEGORY 2 - Career Support Services

This category addresses the extent to which all students are supported throughout their program of study by the program and/or institutional career support services to aid in their employability.

## 2A: Career and employability support services are provided to all students throughout their program of study.

This criterion addresses the extent to which the program or institution has intentionally integrated career and employability support services throughout the student experience.

Criterion 2A: Career and employability support services are provided to all students throughout their program of study.	
Practices in place that address this criterion:	Evidence available that illustrates how the
<ul> <li>Staff resources available to students:</li> <li>Internship Coordinator for Equine Science and Management</li> <li>Center for Student Success – Career Resource staff member</li> <li>Stuckert Career Center (main campus resource)</li> </ul>	program meets this criterion: Meetings with staff resources (number of times students engage with staff regarding career- related services) Course syllabus (content schedule) Course enrollment (numbers of students enrolled in EQM 106, 305, 399) Attendance and participation in events
Courses: • EQM 106 – Intro to Equine Careers • EQM 305 – Equine Industry Issues • Academic enrichment experience (EQM 396 or 399)	Analytics for resources Career shadow opportunities
<ul> <li>Events:</li> <li>Equine specific career fair</li> <li>Equine internship encounter</li> <li>College of Ag Career Fair and Resume Roundup</li> </ul>	
<ul> <li>Resources:</li> <li>Tuesday TidBits</li> <li>Equine Student Hub – SharePoint</li> <li>Air Table with internships and job opportunities updated weekly</li> </ul>	
Self-assessment: What does the program do well in regard to this criterion?	Self-assessment: What might the program need to more effectively meet this criterion?
Students have a variety of resources available to them at the Program, College and University levels.	Overall, we need to do a better job of tracking the data that is already available
<ul> <li>Students -</li> <li>Are introduced and analyze the variety of careers within the equine industry</li> </ul>	<ul> <li>New ideas:</li> <li>Evaluating student job and internship analytics</li> <li>Provide more diverse equine industry career advisement</li> </ul>

<ul> <li>Network with industry professionals</li> <li>Create a resume and cover letter</li> <li>Practice interview skills through mock</li> </ul>	<ul> <li>Offering professionalism series prior to the Equine Career Fair</li> </ul>
<ul> <li>interviews with industry professionals</li> <li>Have 24/hour access to current jobs and internships</li> <li>Have opportunities to explore career and internship options as part of a formal group and independently</li> </ul>	

## CATEGORY 3 - Employer Engagement

This category addresses the extent to which – and how – <u>employers</u> (and other relevant external stakeholders, such as community-based partners or industry group representatives) are engaged in the design, development, delivery, and/or evaluation of the program. This category also considers the degree to which labor market or employer-based data informs program design and learning outcomes.

## 3A: Employers are engaged in developing, delivering, and/or reviewing program outcomes and learning experiences.

This criterion addresses the extent to which employers meaningfully participate in program design, development, and assessment.

Criterion 3A: Employers are engaged in developing, delivering, and/or reviewing program outcomes and learning experiences.		
Practices in place that address this criterion:	Evidence available that illustrates how the program meets this criterion:	
Equine External Advisory Committee (active)		
EQM 305 - Mock interviews	Equine External Advisory Committee is diverse and helps to represent the equine industry	
Industry guest lectures and adjunct faculty	Feedback given by Equine External Advisory	
EQM 399 - Internship hosts	Committee at meetings held 2x/year and via non-formal interviews throughout the year	
Equine workforce summit (2016)	EQM 305 - Mock interview sessions ask for feedback via scoring rubric	
	Guest lecturers speak in several equine related courses (syllabi schedules, lecture notes, etc.) - Number of guest lecturers	
	Industry professionals are given an opportunity to serve as adjunct lecturers – Global Prospective of the Sport Horse Industry, Thoroughbred Investments - Course syllabi are developed by industry professionals	

	EQM 399 Internship Host Evaluation of students on internship
Self-assessment: What does the program do well in regard to this criterion?	Self-assessment: What might the program need to more effectively meet this criterion?
Location of the program allows us to have access to a variety of equine careers within the industry	Collecting data from each of the courses that utilize guest lecturers to have a more comprehensive list
Industry leaders are willing to be involved as guest lectures, internship host sites, etc.	Partner with the Equine Workforce Pipeline project (Laurie Mays) to identify current and future industry needs for employment

## 3B: Employers have clear mechanisms for providing feedback about students, graduates, and the program as a whole.

This criterion assesses the methods and frequency with which the program gathers feedback from employers about students (formative and summative) and alumni to develop and assess student competencies, and provide feedback on the program as a whole.

Criterion 3B: Employers have clear mechanisms for providing feedback about students, graduates, and the program as a whole.	
Practices in place that address this criterion:	Evidence available that illustrates how the program meets this criterion:
EQM 399 – ESMA Internship	EQM 399 -
Equine External Advisory Committee	Benchmark evaluations during internship process
Curricular mapping exercise	Final employer feedback for interns given at the completion of the internship
	<ul> <li>Feedback from Equine External Advisory Committee <ul> <li>Continuous</li> <li>On skills and knowledge needed of students during curriculum mapping exercise</li> <li>Minutes from External Advisory Committee</li> </ul> </li> </ul>
Self-assessment: What does the program do well in regard to this criterion?	Self-assessment: What might the program need to more effectively meet this criterion?
Benchmark evaluations and final employer feedback evaluations for EQM 399 are new, but currently being utilized	Evaluations in place are new and more baseline data needs to be collected
Knowledge and skill data was collected during curriculum mapping exercise and curriculum changes were made starting Fall 2018	Partner with the Equine Workforce Pipeline project (Laurie Mays) to identify current and future industry needs for employment Burning Glass Data labor insight provided by UK Office of Institutional Effectiveness.
Non-formal conversations with faculty and staff from organizations/companies employing alumni keep us up to date on industry needs	ok onice of institutional Enectiveness.

## 3C: The program systematically uses the information and feedback from employers to continuously improve.

This criterion considers the degree to which the program has a formal process in place to reflect on and make changes based upon feedback from employers.

Criterion 3C: The program systematically uses the information and feedback from employers to continuously improve.	
Practices in place that address this criterion:	Evidence available that illustrates how the program meets this criterion:
Equine External Advisory Committee EQM 399 – ESMA Internship Curriculum mapping exercise	Curricular changes have been made to enhance the student's experience and ensure they have the not only the equine knowledge and skills, but also essential employability skills needed to be employed upon graduation. • New curriculum and program change proposals submitted Fall 2017 (reflective of curriculum mapping exercise) and Fall 2018 (requiring EQM 106: Introduction to Equine Careers, of all students)
	EQM 399 - Benchmark evaluations during internship process Final employer feedback for interns given at the completion of the internship
Self-assessment: What does the program do well in regard to this criterion?	Self-assessment: What might the program need to more effectively meet this criterion?
Benchmark evaluations and final employer feedback evaluations for EQM 399 are new, but currently being utilized. These tools allow the employers of our future graduates to have a voice and continuously give feedback on what skills and knowledge our students should possess Knowledge and skill data was collected during curriculum mapping exercise and curriculum changes were made starting Fall 2018	Create an assessment tool and link to an SLO to provide a more formal way for equine industry employers to give feedback on alumni so that changes can be considered for future students/graduates experiences and curriculum

## CATEGORY 4 - Student and Alumni Engagement

This category addresses the extent to which – and how – <u>students</u> and <u>alumni</u> of the program are engaged in assuring program quality.

## 4A: Current students have clear mechanisms for providing feedback about the program.

This criterion addresses the extent to which currently enrolled students meaningfully participate in program design, development, and assessment.

Criterion 4A: Current students have clear mechanisms for providing feedback about the program.					
Practices in place that address this criterion: Graduates are asked to complete the CAFE Graduate Exit Survey EQM 399 – Benchmark and employer evaluations Seniors in EQM 490 (capstone) are asked for feedback during class discussions	Evidence available that illustrates how the program meets this criterion: Baseline data is collected (see list to the left) Student feedback from 5 Year Program Review				
Student representatives participated in small focus groups as part 5 Year Program Review					
Self-assessment: What does the program do well in regard to this criterion?	Self-assessment: What might the program need to more effectively meet this criterion?				
Feedback from students is collected	More informal opportunities need to be identified for students to help guide curricular and program changes				
	CAFE Graduate Exit Survey needs to have more program specific questions in regards to curriculum OR individual program graduate exit surveys need to occur instead (Note: UK is moving towards university wide graduate exit surveys)				
	Provide opportunities for students to provide feedback on program/university committees (I.e. advisory boards)				
	Students need to be provided with a better understanding of why assessment is occurring and how it can affect the program. Hopefully increasing appreciation for it				
	Feedback during Capstone discussions need to be more targeted and comprehensive				

4B: Alumni have clear mechanisms for providing feedback about the program. This criterion addresses the extent to which currently alumni meaningfully participate in program design, development, and assessment.

Criterion 4B: Alumni have clear mechanisms for providing feedback about the program.				
<ul> <li>Practices in place that address this criterion:</li> <li>Equine Affiliate Network Chapter and Board of Directors</li> <li>Multiple alumni events occur in which alumni can have conversations with faculty and staff</li> <li>Guest lecture opportunities for alumni</li> <li>Involvement of alumni in program events – mock interviews, equine career fair, recruitment events</li> <li>Alumni rep as part of 5 Year Program Review</li> <li>Curriculum mapping feedback</li> </ul>	Evidence available that illustrates how the program meets this criterion: Equine Affiliate Network agenda and meeting minutes Attendance at events List of alumni and their involvement in various program events and activities List of alumni currently hosting interns and/or employing graduates or current students Survey data from curriculum mapping rating knowledge and skills needed of graduates			
Self-assessment: What does the program do well in regard to this criterion? We foster continuous relationships with our alumni and give them multiple ways to stay involved and give feedback Equine Alumni Affiliate Network gives alumni a cohort of fellow alums to network with and create opportunities for current students Diversity of membership of the Equine Alumni Affiliate Network board of directors Curriculum changes were made based off of feedback	Self-assessment: What might the program need to more effectively meet this criterion? Provide opportunities for alumni to provide feedback on program/university committees and/or post-graduation surveys Find more ways for alums to become involved with current students (I.e. mentorship opportunities) so that current students see the value in being engaged in the Network upon graduation Suggest that an alum representative sits on the Equine External Advisory Committee			

## 4C: The program systematically uses the information and feedback from students and alumni to continuously improve.

This criterion considers the degree to which the program has a formal process in place to reflect on and make changes based upon feedback from students and alumni.

Criterion 4C: The program systematically uses the information and feedback from students and alumni to continuously improve.				
Practices in place that address this criterion: Equine Curriculum committee and teaching faculty review data as collected 5 Year Program Review Course schedules / # of seats / semesters offered, etc changed as needed to fulfill number of students enrolled in the program	<ul> <li>Evidence available that illustrates how the program meets this criterion:</li> <li>5 Year Program Review changes</li> <li>Course schedules/ # of seats / semesters offered, etcchanges have been made to best accommodate student numbers and needs</li> <li>Fall 2018 curriculum changes implemented <ul> <li>Creation of EQM 305</li> <li>Requiring EQM 106</li> </ul> </li> </ul>			
Self-assessment: What does the program do well in regard to this criterion? Equine Curriculum Committee meets frequently Schedule changes to EQM courses are looked at each semester and changes are made as needed to make courses more accessible to students	Self-assessment: What might the program need to more effectively meet this criterion? Evaluate new changes made and provide students with an opportunity to give feedback Explore ways to gain input from students and evaluate the data to identify potential program changes and improvements to better meet the needs of the students Need to better utilize and review the program strategic plan			

## CATEGORY 5 - Public Information

This category addresses the extent to which the program (or institution) provides information about the program and its outcomes to prospective and current students, employers, and the public.

5A: The program provides information to the public about:

- 1. The Essential Employability Qualities that students will acquire.
- 2. How students will acquire the EEQs.
- 3. The career pathways and professional opportunities for which they will be prepared.
- 4. Current typical program costs.

This criterion addresses the quality and accessibility of public information about student preparation for employability and program costs

Criterion 5A: The program provides information to the public about: 1. The Essential Employability Qualities that students will acquire. 2. How students will acquire the EEQs. 3. The career pathways and professional opportunities for which they will be prepared. 4. Current typical program costs. Practices in place that address this criterion: Evidence available that illustrates how the program meets this criterion: Pathway to Professionalism infographic has been created addressing the EEQs and how UK resources available in electronic and hard students will acquire those skills during their copy formats (I.e. admissions view book) time in the program Website links and analytics Current curriculum has emphasis areas (Science, Business and CLD) and allows Analytics, shares and likes from social media students to customize course work related to posts their future career goals Pathway to Professionalism infographic University of Kentucky communications efforts and resources: Attendance and participation numbers at events Equine Program Communications Efforts: Career list (as linked to emphasis areas) • Website Wildcat Canter • Facebook Instagram • Twitter Events/Activities • Prospective student visits • Student recruitment events • Equine Experience Day • Equine Career Fair Internship Showcase

Self-assessment: What does the program do well in regard to this criterion?	Self-assessment: What might the program need to more effectively meet this criterion?
Communications person on staff	Website could be utilized to advertise the data in more detail – Graduate profile, linking
Platforms and opportunities are in place and currently being utilized	to curriculum/specific courses
	Incorporate the specific EEQs into what is already being utilized from a communications effort

5B: The program provides to the public the following data (3-year trend data where possible):

- 1) Program completion rates, including time to completion, disaggregated by gender, race, and ethnicity.
- 2) Job placement information, further education rates, and/or advancement data of program graduates.
- 3) Salary data of program graduates.
- 4) Evidence of program graduates' effectiveness in the workplace.

This criterion addresses the quality and accessibility of public information about graduates' outcomes, including program completion, job placement, salary data, and effectiveness in the workplace.

Criterion 5B: The program provides information to the public about: 1. Program completion rates, including time to completion, disaggregated by gender, race, and ethnicity. 2. Job placement information, further education rates, and/or advancement data of program graduates. 3. Salary data of program graduates. 4. Evidence of program graduates' effectiveness in the workplace. Practices in place that address this criterion: Evidence available that illustrates how the program meets this criterion: Student data is available via Tableau (as needed) Reports available via Tableau for demographics, retention rates, etc... Alumni career placement database is collected and updated often Alumni career placement chart is provided during prospective student visits Presentations (internally and externally) Self-assessment: What does the program do well Self-assessment: What might the program in regard to this criterion? need to more effectively meet this criterion? Tableau is a great resource to pull data from Salary data is not currently Alumni job placement database is in place and collected/available but could be offered updated several times per month as new data is through the Burning Glass data available No information is currently collected on our araduate's effectiveness in the workplace Program reports are not currently shared publicly More information should be shared via communication platforms. For example, landing page on Equine Programs

website that houses this information as well as social media accounts.		
Program reports need to be run more often		

## Appendix Core Area 2.p

### Equine Science and Management Assessment Artifacts by Course

EQM 101	EQM 105	EQM 106	ASC 310	ASC 320	EQM 305	EQM 351	EQM 399	EQM 490
will be tested on	Midterm exam(s): individual student scores on pre- selected questions (and copy of questions) (SLO 1A)	Professional growth plan: individual student status level score (SLO 3B)	Midterm exam(s): individual student scores on pre- selected questions (and copy of questions) (SLO 1A)	Midterm exam(s): individual student scores on pre- selected questions (and copy of questions) (SLO 1A)	Scientific PowerPoint presentation: individual student scores for the "Report of Research/ Background information" section of rubric (SLO 1C)	Midterm exam(s): individual student scores on pre- selected questions (and copy of questions) (SLO 1A)	Internship poster assignment: individual student scores on the "Content and Quality of Visual Display" section of the rubric (SLO 3A)	Scientific PowerPoint presentation: individual student scores for the "Report of Research/ Background information" section of rubric (SLO 1C)
Final exam: individual scores on pre-selected questions (and copy of questions) (SLO 1A)	Final exam: individual scores on pre-selected questions (and copy of questions) (SLO 1A)		Final exam: individual scores on pre-selected questions (and copy of questions) (SLO 1A)	Final exam: individual scores on pre-selected questions (and copy of questions) (SLO 1A)	Scientific PowerPoint presentation: overall score for individual students (SLO 3A)	Final exam: individual scores on pre-selected questions (and copy of questions) (SLO 1A)	Internship poster assignment: individual student scores on the "Poster presentation" section of the rubric (SLO 3C)	Scientific PowerPoint presentation: individual student scores for the "Blending of science and ethics" section of rubric (SLO 4)
	Lab Practical exam: individual scores on pre-selected horse handling tasks (SLO 1B)			Lab Practical exam: individual scores on pre-selected horse management practices (SLO 1B)	Scientific PowerPoint presentation: individual student scores for the "Presentation Style" section of rubric (SLO 3C)		Professional growth plan: individual student status level score (SLO 3B) Supervisor	Debate/Workplace ethics assignment: Individual overall student scores (SLO 2)
	Self-assessment of horse-handling skills at start of semester (SLO 1B)				Scientific PowerPoint presentation: individual student scores for the "Blending of science and ethics" section of rubric (SLO 4)		evaulation: individual student scores for the "adaptability and collaboration", as assessed by the internship supervisor (SLO 5)	ePortfolio assignment: individual student scores on assignment (SLO 3B)
	Teamwork Equine Assisted Leadership pre-self assessment: individual student scores (SLO 5)				Contentitious topic paper: individual student overall scores (SLO 2)			White paper: team score for white paper (SLO 4)
	Teamwork Equine Assisted Leadership post-self assessment: individual student scores				Resume assignment: individual student overall scores for both resume and cover letter (SLO 3B)			White paper team work assessment: individual student overall ratings for their contributions to team work assigned by each group member (score on 1-5 scale assigned by each group member on page 1 of assessment) (SLO 5)
					Mock interview assignment: individual student rating by external interviewer (SLO 3C)			

### Dr Emma N. Adam

College of Agriculture, Food and Environment Department of Veterinary Science 2016-2022 CV

### **Education**

Doctor of Philosophy, University of Kentucky, 2016. Major: Equine cartilage and transcriptomics. Dissertation Title: Differential Gene Expression in Equine Cartilaginous Tissues and Induced Chondrocytes.
Diplomate, American College of Veterinary Surgeons, New Bolton Center, University of Pennsylvania, 2007. Major: Large animal surgery
Diplomate, American College of Veterinary Internal Medicine, Texas A&M University, 2004. Major: Large animal internal medicine

Doctor of Veterinary Medicine (Equiv BVetMed), Royal Veterinary College, University of London, 1993.

Major: Veterinary Science

Bachelors of Science, Kings' College University of London, 1990. Major: Physiology

## **Research and Scholarship**

#### **Intellectual Contributions**

\* = Senior Author ~ = Corresponding Author + = Grad/Prof Student # = Post Doc ^ = Undergraduate WOS = Web of Science JIF = Journal Impact Factor TC = Journal Total Cites SNIP = Source Normalize Impact per Paper SJR = Scimago Journal Rank

#### Published

Book, Chapter in Scholarly Book-Revised

Adam, E., Li, F., Timoney, P. (2021). Equis Rotavirus *Vetlexicon Equis*.. **Cited Research** 

Adam, E. N., \* MacLeod, J. N. (2019). Effect of Skeletal Paracrine Signals on the Proliferation of Interzone Cells., *Cartilage*. doi: 10.1177/1947603519841680 Invited Editorial \* ~ Adam, E. N. (2021). Identifying bacterial infections in synovial structures — When will the Cavalry arrive?.

Author Role: Review of field of pertinent literature.

#### Journal Article, Academic Journal

~ Page, A. E., + Wood, C., + Partridge, E. N., Horohov, N., \* Adam, E. N. (2021). Equine Peripheral Gene Expression Changes in Response to Dose-Dependent Lipopolysaccharide-Induced Synovitis, *Journal of Equine Veterinary Science*, 109. doi: https://doi.org/10.1016/j.jevs.2021.103828

Uprety, T., Sreenivasan, C. C., Hause, B. M., Li, G., Odemuyiwa, S. O., Locke, S., Morgan, J., Zeng, L., Gilsenan, W. F., Slovis, N., Metcalfe, L., Carter, C. N., Timoney, P. J., Horohov, D. W., Wang, D., ~ Erol, E., ~ Adam, E. N., ~ Li, F. (2021). Identification of a ruminant origin group b rotavirus associated with diarrhea outbreaks in foals, *Viruses*, 13(7). doi: 10.3390/v13071330
Scopus Metric Year: 2020 | Category: Infectious Diseases | CiteScore: 5.7 | Highest Percentile: 73 | Rank: #/N: 77/288 | SNIP: 1.679 | SJR: 1.828
Author Role:
I am co-corresponding author with Drs. Emma Adam and Erdal Erol. The first author Tirth Uprety is my PhD student, while the second author Dr. Chithra Sreenivasan is a postdoctoral scholar under my supervision.

Page, A. E., Adam, E. N., Arthur, R., Barker, V., Franklin, F., Friedman, R., Grande, T., Hardy, M., Howard, B., Partridge, E., Rutledge, M., Scollay, M., Stewart, J. C., Vale, A., Horohov, D. W. (2021). Expression of select mRNA in Thoroughbreds with catastrophic racing injuries, *Equine Veterinary Journal*. doi: 10.1111/evj.13423
WOS Metric Year: 2021 | JIF: 2.888 | TC: 9380
Scopus Metric Year: 2020 | Category: Equine | CiteScore: 4 | Highest Percentile: 78 | SNIP: 1.82 | SJR: 0.82

- Page, A. E., Adam, E. N., Stewart, J. C., Gonzales, C., Barker, V., Horohov, D. W. (2020). Alterations of peripheral gene expression in response to lipopolysaccharide-induced synovitis as a model for inflammation in horses, *Veterinary immunology and immunopathology*, 225, 110058. doi: 10.1016/j.vetimm.2020.110058
- Adam, E. N., Janes, J. G., Lowney, R., Lambert, J. W., Thampy, P., Stromberg, A., MacLeod, J. N. (2019). Chondrogenic differentiation potential of adult and fetal equine cell types, *Veterinary Surgery*, 48(3), 375-387. doi: 10.1111/vsu.13183 | Category:Veterinary Science | JIF: 1.255 | Rank by JIF: 61/141 | TC: 518 | Rank by TC: 28/141 Author Role:

Dr. Janes was involved in edit and review of the manuscript. Dr. Janes was responsible for morphologic descriptions and grading scale assignment based on microscopic evaluation of the tissue.

#### Newsletter

~ Adam, E., ~ Li, F. (2021). Equine Rotavirus B and Neonatal Foal Diarrhea Equine Disease Quarterly Newsletter, 30(4), 5.

#### **Sponsored Projects**

#### Awarded

Page A., E., Adam E., N., Horohov D., W., Kalbfleisch T., S., MacLeod J., N., Identification of Novel mRNA Targets in Catastrophically Injured Thoroughbred Racehorses Using RNA Sequencing, Sponsored by KY Horse Racing Commission Submitted: August 23, 2019. Funding Dates: July 1, 2020 - June 30, 2022. | Awarded: \$132,228.00
 OSPA ID: 201908230951

#### Not Funded

Page A., E., Adam E., N., Inflammatory mRNA Expression in Training Thoroughbreds, Sponsored by Grayson Jockey Club Research Foundation Inc Submitted: September 30, 2019. | Awarded: \$0.00

OSPA ID: 201909301302

 Page A., E., Adam E., N., Pre-Race Inflammation in Catastrophically Injured Horses, Sponsored by Grayson Jockey Club Research Foundation Inc Submitted: September 28, 2020. | Awarded: \$0.00

OSPA ID: 202009281626

#### Pending

- Page A., E., Adam E., N., Expression of Inflammatory mRNA in Thoroughbreds Returning to Race Training Following Importation into Hong Kong, Sponsored by Hong Kong Jockey Club Submitted: April 27, 2021. | Awarded: \$0.00
   OSPA ID: 202104270837
- Page A., E., Adam E., N., Pre-Race Inflammation in Catastrophically Injured Horses, Sponsored by Grayson Jockey Club Research Foundation Inc Submitted: September 28, 2021. | Awarded: \$0.00

OSPA ID: 202109281537

- Page A., E., Adam E., N., Pre-Race Inflammation in Catastrophically Injured Horses, Sponsored by KY Horse Racing Commission Submitted: May 21, 2021. | Awarded: \$0.00 OSPA ID: 202105210857
- Page A., E., Adam E., N., Pre-Race Inflammation in Catastrophically Injured Horses, Sponsored by KY Horse Racing Commission Submitted: September 8, 2021. | Awarded: \$0.00 OSPA ID: 202109081651
- Page A., E., Wang D., Adam E., N., Li F., Chambers T., M., Prevention Strategy for Rotavirus B Infection in Foals, Sponsored by Grayson Jockey Club Research Foundation Inc Submitted: September 23, 2021. | Awarded: \$0.00
   OSPA ID: 202109230935

#### **Non-Sponsored Projects**

#### Foundation

Animal Health and Disease On-going

Li, F. (Co-Principal), Adam, E. N. (Co-Principal), Wang, D. (Co-Principal), Sreenivasan, C. (Principal), Developing tools to study the molecular prevalence, seroprevalence and vaccine

of Equine Rotavirus B

, Gluck Equine Research Foundation, University of Kentucky, (October 2021 - September 2022). Awarded: \$25000.

#### Other

#### **On-going**

Page, A. E., Adam, E. N., Development of an enzyme-linked immunosorbent assay (ELISA) for the detection of serum antibodies to nocardioform placentitis bacteria., Gluck Equine Research Foundation, (October 31, 2020 - Present). Awarded: \$25000.

#### **Under Review**

 Adam, E. N. (Collaborator), Page, A. E. (Co-Principal), Horohov, D. W. (Principal), Identification of Novel mRNA Targets in Catastrophically Injured Thoroughbred Racehorses Using RNA Sequencing, Equine Drug Research Council.
 Description: funding is pending

#### Animal Health and Disease

#### **On-going**

- Li, F. (Multi-PI), Wang, D. (Multi-PI), Adam, E. (Multi-PI), Equine Rotavirus Research, Zoetis, (July 1, 2021 June 30, 2022). Awarded: \$23750.
   Description: This funding from Zoetis is to support our study that aims to study equine rotavirus and vaccine-mediated protection.
- Adam, E. N. (Other), Effect of LPS on inflammatory markers in whole blood, (March 2019 Present).

#### **Intellectual Property**

Li, F., Wang, D., Adam, E. N., Horohov, D. W., Equine Rotavirus Group B and Diagnosis, Patent/Copyright/ID Number: 63/169,645

#### **Presentations Given**

Adam E. N., Mok C. H., MacLeod J. N., (July 2018). Stability of chondrogenic differentiation potential in cultured equine primary cells as a function of passage number American Society of Animal Science, ASAS, Vancouver, Canada. National.

#### **Extension - Other Extension Presentations**

- Adam E. N., (January 25, 2020). Neonatal Isoeryhtrolysis 2020 UK Ag Equine Programs Showcase, University of Kentucky. Invited, Regional.
- Adam E. N., (January 24, 2020). Why understanding the biology of different cartilage tissue types may provide new therapeutic insights for joint cartilage lesions 2020 Equine Showcase, University of Kentucky CAFE Equine Programs. Invited, Regional.

#### **Invited Speaker**

Sreenivasan C., Wang D., Adam E. N., Li F., (July 19, 2021). Rotavirus A Initiative 2021 Equine Rotavirus Workshop, COLLEGE OF AGRICULTURE, FOOD AND ENVIRONMENT Department of Veterinary Science

Gluck Equine Research Center, Lexington. Accepted, National.

- Adam E. N., (November 11, 2020). Synovial Joints: the natural wonder of their development and their cartilage Invited Lecture, Virginia-Maryland College of Veterinary Medicine, VA, United States. Invited.
- Adam E. N., (August 20, 2018). 6 hours on S. Equi (Strangles) and Musculoskeletal Disease FETCH 360 DVM, Kansas City, MO, United States. Invited, National.

#### **Podium Session**

- Adam E. N., Li F., Wang D., Erol E., (July 19, 2021). 2021 Foal Diarrhea Study 2021 Equine Rotavirus Workshop, University of Kentucky Gluck Equine Research Center. Invited, International.
- Adam E. N., (December 9, 2019). How to manage rectal tears AAEP Convention, AAEP, Denver, CO, United States. Accepted, International.
- Adam E. N., (September 20, 2018). PCR: what we need to know Equine Herpes Virus Mini-Summit, CAFE/GERC, Lexington, KY, United States. Invited, State.
- Adam E. N., Janes J. G., Lowney R., Thampi P., Lambert J. W., Stromberg A., MacLeod J. N., (October 12, 2017). Comparative Chondrogenic Potential of Equine Fetal Progenitor Cells and Adult Adipose- and Bone Marrow-Derived Cells 2017 ACVS Surgery Summit, American College of Veterinary Surgery, Indianapolis, IN, United States. Accepted, International.

#### **Specialty Presentation**

- Adam E. N., (May 13, 2021). Novel Equine Rotavirus B Update National Equine Conference Call. Invited, International.
- Adam E. N., (February 5, 2020). Dystocia UK VetCE series, University of Kentucky, Lexington, KY, United States. Invited, Regional.

## Extension

#### Extension Education & Training Programs Extension Leader Lesson

- *Invited speaker*. Engaging the Horse Industry in Resource Conservation. (February 26, 2019). Scope: State. Participants: 45 County agents/ specialists.
- Description: Training day for Extension specialists with some invited industry stakeholders Field Day Presentation
  - *Invited speaker*. Kentucky Horse Council Horse Care. (March 7, 2020). Scope: Multi-county. Participants: 28 General public.
    - Description: Kentucky Horse Council. All day educational experience designed for young people to learn about horses and how to get involved.

#### **Multi-County Presentation**

*Invited speaker*. NRCS/ Extension Agent Training. (April 8, 2020). Scope: Multi-county. Participants: 61 County agents/ specialists.

Description: NRCS/UK Plant and Soil Sciences/Extension. Half day training workshop that was meant to be in person in Henderson County but was held by Zoom due to CoVID-19.

*Invited speaker*. Equine Pre-Purchase Exam. (November 8, 2019). Scope: Multi-county. Interest group members.

Description: Northern Kentucky Horseman's Group (Don Sorrell). Day session for extension agents and any interested party (typically horse owners/riders)

*Multiple roles (describe in description box)*. Equine Extension Summit. (December 18, 2018 - December 29, 2018). Scope: Multi-county. Counties: 50. Participants: 300 County agents/ specialists.

Description: Speaker and Facilitator

#### **Other Extension Presentation**

**Program organizer**. Webinar - Smart Microchip Utility in Horses. (May 7, 2020). Scope: International. Other.

Description: Online webinar KBVE approved CE seminar

**Program organizer**. Equine Education and Research Showcase. (January 24, 2020 - January 25, 2020). Scope: Multi-state. Participants: 60 Other.

Description: CAFE, UK Ag Equine Programs, Stakeholder sponsorship also obtained. Assist in the organization and execution of a two day lay educational meeting. help with obtaining industry stakeholder sponsorship, generating the program speakers and subject of the program.

**Program organizer**. Equine Endocrine Disease and Laminitis. (October 15, 2019). Scope: Multi-state. Participants: 115 Industry professionals.

Description: Boerhinger Ingelheim. AAVSB RACE Veterinary CE with sponsored outside speaker from the University of Pennsylvania's New Bolton Center. Lunch and snacks provided.

Also livestreamed to Breathitt Service Lab for participants to receive CE credit .

**Program organizer**. Sport Horse Medicine. (August 19, 2019). Scope: Multi-state. Participants: 85 Industry professionals.

Description: Zoetis. AAVSB RACE approved equine veterinary CE, with sponsor provided snacks and lunch. Also livestreamed to Breathitt Service Lab for participants to receive CE credit.

**Program organizer**. Mare & Foal Health Issues. (January 25, 2019). Scope: Multi-state. Participants: 82 Industry professionals.

Description: Sponsored by the KAEP. Veterinary continuing education. AASVB RACE approved.

*Multiple roles (describe in description box)*. GERC Hall of Fame. (October 31, 2018). Scope: International. Participants: 90 Industry professionals.

Description: Assisting with organization and hosting of Hall of Fame celebrations.

#### Seminar

*Multiple roles (describe in description box)*. Semester Seminars. (July 2020 - December 2020). Scope: Multi-state. Participants: 30 Other.

Description: Gluck Equine Research Center. Develop and promote Zoom Webinar Platform to transition for in-person format to virtual platform for weekly (approx.) research seminars at GERC. Curate recording for web hosting where applicable, develop attendance certificates

and their delivery, answer questions from attendees and speakers. Promote through outlets and contact with stakeholders.

**Program organizer**. Equine Developmental Disease & Rotavirus. (January 16, 2020). Scope: Multi-state. Participants: 83 Other.

Description: 4 hours of AAVSB RACE approved quality CE for veterinarians, vet techs, vet students and other interested parties. Hosted at the UK Veterinary Diagnostic Lab as a way to showcase out facilities and expertise.

Generate feedback survey and submit curated data back to sponsor. Zoetis sponsored the food provided.

**Program organizer**. Veterinary Continuing Education. (July 1, 2018 - December 2019). Scope: State. Participants: 30 Industry professionals.

Description: 2018 TheHorse.com, KAEP, CAFE. Veterinary continuing education attended by veterinarians, farm managers and industry professionals. Host speaker, disseminate advertising material. Organize future programs, Obtain feedback.

*Invited speaker*. Thoroughbred Makeover. (October 2, 2019 - October 5, 2019). Scope: National. Participants: 50 Other.

Description: Discussing musculoskeletal issues in retired racehorses with professional and lay audience.

*Program organizer*. Equine Showcase. (January 26, 2019). Scope: State. Participants: 50 General public.

Description: Equine Showcase highlights UK CAFE equine related expertise.

#### Workshop

Program organizer. Veterinarian Lifestyle Sustainability Workshop. (January 7, 2021 - January 9, 2021). Scope: Multi-county. Counties: 3. Participants: 17 Industry professionals. Number of Times Given: 2

Description: Workshop to assist young equine veterinarians overcome the hurdles they face that is considered to be at the root of the 50% attrition of equine veterinarians within 5 years of entering the profession.

**Program organizer**. Equine Herpes Virus. (September 20, 2018 - September 21, 2018). Participants: 85 Industry professionals.

Description: 4 hour seminar presentation by experts followed by half day workshop to discuss current problems with EHV in the Equine Industry.

#### **Extension Related Consulting**

Academic, Zoetis. (May 2020 - Present).

Description: Observations of clinical practitioners and my own experience led me to introduce local practitioners to our two new virologists, Dr Feng Li and Dr Dan Wang, to investigate the ongoing issue of equine rotaviral diarrhea in vaccinated foals. This has led to the recruitment of 5 farms for sample collection and ongoing talks to develop sponsored collaborative projects with Zoetis, with the possibility of a sponsored graduate student and research funding.

Business and Industry, Spy Coast Farm, Lexington, KY, United States. (September 1, 2018 - Present).

Description: Introduced Dr Horohov and Dr Page to SCF owner Lisa Lourie and vets Dr Vargers and Dr Burleson for generation of collaborative research project. Presentation of

current project (Oct 21, 2019). Further projects have been organized and funded during 2020.

Business and Industry, Industry Stakeholders: Non-veterinary professionals/non-professionals. (January 2021 - December 2021).

Description: Each work week involves between 7 and 10 hours (time consolidated) of industry related non-veterinarian stakeholder telephone and email enquiries. This time includes both the initial call/email and the calls/emails that are necessary to find the answer to the enquiry. It attempts to include the time it takes to report back to the initial enquiry.

Business and Industry, Churchill Downs Inc. (February 2020 - December 2020).
 Description: CDI are refurbishing their facilities. I approached Mr Ziegler that this would be a good time to address lung (humans and equine) health in the horse barns. Just prior to the CoVID-19 shut down we were due to visit their facility to discuss Dr Morgan Hayes consulting with them. Discussions are now opening up (Dec 2020)

Business and Industry, American Association Of Equine Practitioners. (January 2020 - December 2020).

Description: 1) ISO smart microchips and reading platforms - create videoconference for key industry stakeholders to understand this technology.

2) Young Veterinarian Mentorship Program - by phone

Business and Industry, Industry Stakeholders: Veterinary professionals. (January 2020 - December 2020).

Description: 240 hours is based on an average of 5 hours per work week that is spent (i) helping veterinary professionals with information calls, (ii) connecting veterinary professionals to Gluck/UK or other Uni resources, (iii) discussions related to enquiries we received from their clients (iv) providing information regarding CE and certificates, and (iv) providing published information they cannot source, (vi) providing guidance for industry professionals regarding research.

Academic, PanAmerican Society for Pigment Cell Research. Equine Steering Committee. (January 2020 - December 2020).

Description: Meetings and email correspondence with organizer, Dr John D'Orazio, for 2021 conference to generate ideas for equine research related to pigment cell biology; suggested topics, speakers and introduced Dr D'Orazio to speakers and connected him with potential sponsors. Also suggested horse/Lexington related activities for attendees and spousal program.

Students: Undergraduate and graduate. (January 2020 - December 2020).

Description: Many students, undergraduate and graduate, are pointed in my direction to discuss (i) becoming a veterinarian, (ii) research as a career, (iii) doing residency training, (iv) dealing with visa and licensing issues as a foreign graduate, and (v) the variety of career options other than veterinary school.

Business and Industry, Spendthrift Farm, Lexington, United States. (October 2, 2019 - December 2020).

Description: With Drs Ted Kalbfleisch and Ernie Bailey, we engaged with the farm management to educate them on matters of genetics in the TB breeding industry.

Academic, TVG Film Crew. (January 15, 2020 - July 2020).

Description: Resulted in one video released through multi-media on Equine Colic

Business and Industry, Multiple Roles: Nocardioform Placentitis Disease Storm. (January 2020 - June 2020).

Description: 1) Multiple meetings with industry stakeholders, farm managers and vets. 2) Development of research protocol

3) Generation and delivery of kits, forms, information sheets to vets and farms. Weekdays and weekends.

4) Support meetings and multiple phone calls with VDL, farm managers andante vets throughout the tissue harvesting process.

5) Collection and distribution of tissue and blood samples as well as paperwork across many UK locations and farms/clinics.

Business and Industry, Grayson Jockey Club. (January 2020 - March 2020). Description: Discussed with Dr Johhny Mac Smith our nocardioform placentitis crisis and the need for ongoing research support. Part of a team to catalyze a gift from the Grayson Jockey Club (\$90,000) to assist in research efforts and generating a biobank of samples to use collaboratively with other researchers.

Business and Industry, Spendthrift Farm. (January 2020 - March 2020).

Description: Discuss and provide information regarding Throughbred genetics on a topic that could have international ramifications. Organize continued discussion with Drs Kalbfleisch and Bailey with Spendthrift owner/manangement.

Business and Industry, Indian Creek Farm, Paris, United States. (May 1, 2019 - February 2020). Description: 2 visits; One with Dr Martin Nielsen for parasite program evaluation. One later in the year with Dr Rebecca Ruby to discuss Potomac Horse Fever Cases and pasture. Subsequent follow up with Dr Steve Higgins and Krista Lea - both assisted the farm.

Business and Industry, Taylor Made Farms. (November 1, 2018 - January 2020).

Business and Industry, Dr Samantha Brooks. (January 2, 2020).

Business and Industry, RMTC. (January 2, 2020).

Business and Industry, Veterinarians and Farm Managers, KY. (January 1, 2019 - December 31, 2019).

Description: 2-10 phone calls per day from Industry and at least 1 contact per day from a UK faculty/staff member. Calls not limited to business hours - many are evenings and weekends. Not all are in-state.

Business and Industry, Introductions to industry stakeholders, KY, United States. (July 1, 2018 - December 2019).

Description: Assist Faculty members with understanding the nuances and issues of the equine industry and mediate their meeting industry stakeholders in person. This activity is not limited to business hours and often takes places after hours and on weekends

Business and Industry, Visit with Norm Luba to Gumz Farm, KY. (January 29, 2019). Description: Visit with Norm Luba to a large QH facility, Gumz Farm. This visit was designed to encourage a positive relationship with this farm and its connection to the KY QH industry.

Business and Industry, Local specialist practitioner, Lexington, KY, United States. (September 12, 2018).

Description: Meet with a concerned specialist to understand and address the nature of a complaint received. Gather information on remedying the situation. Maintain ongoing dialogue

Business and Industry, Dr Kerry Beckman, Gaslight Equine, Shelbyville, KY, United States.(September 5, 2018).Description: Site visit, presentation of plan for investigating problem and potential actions.

#### **Professional Service**

#### **Committee Chair**

ACVS Research Committee, (September 20, 2016 - October 31, 2021). Committee Member

American Association of Equine Practitioners, Racing Committee, (December 2018 - December 2022).

#### Interaction with Industry

Kentucky Thoroughbred Association & Kentucky Thoroughbred Owners and Breeders Association, Advisory Board liaison, (November 2018 - Present).

#### **Invited Lecture**

American Association of Equine Practitioners, Ethics Session Moderator, (December 6, 2019 - December 10, 2019).

#### **Program Organizer**

Organize faculty members for mini-symposium on fescue and related issues, (July 29, 2021). Reviewer, Ad Hoc Reviewer

Cartilage, Approximately 6 articles to review per year, (June 1, 2019 - Present).

Equine Veterinary Journal, Approximately 8-12 articles to review per year, (July 2016 - Present).

Equine Veterinary Education, Reviewer and contributor (approximately 4 - 6 articles to review per year), (January 2015 - Present).

Veterinary Surgery, Ad hoc reviewer, (July 2008 - Present). Reviewer, Grant Proposal

AAEP, Research Proposal Reviewer, (October 2017 - Present). Veterinary Advisor AVMA-PLIT, American Veterinary Medical Association Professional Liability Trust, (June 1, 2018 - Present).

# Public Service Administrative Committee, Chair

Equine Programs Equine Showcase, Execution of 4 part Online Event January and February 2021. Generation of schedule of events for 2022 program., (January 5, 2021 - February 9, 2021). Administrative Committee, Member

Equine Programs Showcase Annual Event, (January 2020 - December 2020).

### **Guest Speaker**

Northern Kentucky Equine Conference, All day educational seminar, (November 6, 2021).

Rood and Riddle Equine Hospital, Podcast, (April 15, 2021).

# **Program Organizer**

Georgetown College, Organize tour and meeting with faculty, (March 4, 2020).

# Volunteer

Equine Programs, Equine Week of Service, (September 28, 2020 - October 2, 2020).

Type of Media	Dates	Faculty	Description	Evidence of Reach
		Member's Role		
Social Media	November	Editor/Co-Editor	Change up our SM presence	
	1, 2018 -		to use it as a platform to	
	Present		send people back to our new	
			website where information	
			on our research/faculty and	
			other horse health	
			information will be lodged.	
Website makeover	October		Overhaul of Gluck Equine	
	31, 2018 -		Research Center website,	
	Present		with views of our	
			stakehoders taken nto	
			consideration. Generation of	
			indexed intent on what GERC	
			does, who does it and a	
			searchable library of	
			information pertinent to	
			equine stakeholders and	
			veterinarians.	
Qualtrics Survey	October	Editor/Co-Editor	Survey to industry	1000
	31, 2018 -		stakeholders (not just the	
	December		equine industry) regarding CE	

# **Extension Media Summary**

	31, 2018		preferences, use of Gluck and VDL websites, and VDL services to understand the needs and wishes of our stakeholders.	
Podcasts	July 1, 2018 - December 31, 2018	Editor/Co-Editor	Summary of veterinary publications in 6 min podcast format. 3 podcasts.	International journal with >3000 subscribers
Radio	Septembe r 22, 2018	Contributor	Invited interview regarding role At UK, comments about recent genetic testing.	>1000
Invited written review	Septembe r 17, 2018	Editor/Co-Editor	Invited review on standard of care for rectal tears in horses. Published by AVMA Professional Liability trust which goes to all US veterinarians	AVMA membership> 20,000

### **Media Contributions**

### Internet

"I Am Horseracing, TVG." (June 2020). Explanation of entrapped epiglottis to lay audience.

- "Website, Facebook, Equine Science Review, Twitter. Extension outlets." (May 2020). Six minute video that Dr McDowell and I generated for media distribution.
- "Website, Twitter, Facebook, Extension outlets. Equine Science Review." (March 2020). Eight minute video with Dr McDowell featuring work on fescue from UK researchers in the species.
- "Nocardioform Placentitis Information Document." (February 2020). Segued Dr Ball's article on nocardioform placentitis into a short bullet point document for rapid distribution and website posting during an equine disease storm.
- "Gluck website, Facebook, Twitter." (January 2020). Worked extensively with Dr Karen McDowell's work to generate 8 minute educational video on "what we know about Fescue" as Part 1 in a series of educational information based on her research and that of other and UK and beyond.

# **Extension Field & Community-Based Research**

Wang, Dan, Adam, Emma, Timoney, Peter, Li, Feng, Page, Allen. The equine rotavirus initiative. (January 2021 - Present). Department of Veterinary Science; Zoetis.

Wang, Dan, Adam, Emma, Li, Feng. Equine Rotavirus B. (March 2021 - December 30, 2021).

Wang, Dan, Li, Feng, Adam, Emma. Horse liver disease. (January 2021 - July 2021). Mills Endowment Fund.

Description: Provide technical help in preparing and analyzing sequence data generated from horse liver disease samples (blood, liver, fecal samples)

- Li, Feng, Wang, Dan, Adam, Emma, Horohov, David. Isolation of equine rotavirus B from diseased foals. (July 28, 2021). Mills Chair Endowment Fund. Description: Meeting with Zoetis group to update them our research on equine rotavirus B
- Li, Feng, Adam, Emma, Horohov, David. Idiopathic Equine Hepatitis Case Discussion. (March 30, 2021). Oxley Foundation Fund (\$10,000).
   Description: I presented next-generation sequencing and r16S RNA analyses on samples from horses with Hepatitis syndrome
- Li, Feng, Adam, Emma, Horohov, David. Emerging Infectious Disease in Horses with Fever and Elevated Liver Enzyme Symptoms. (January 27, 2021). Lexington. 10 participants. Oxley Foundation Gift (\$10,000).
   Description: There is a emerging infectious disease in horses with fever and elevated liver enzyme symptoms. I worked with equine industry together towards the identification of

enzyme symptoms. I worked with equine industry together towards the identification of causative agents

- Adam, Emma. Nocardioform Placentitis: Sample Collection, Stakeholder Information, Funding.
  (January 15, 2020 August 31, 2020). KY and several other states.
  Description: Assisted collaborative research group lead by Dr Barry Ball to identify field cases of mares with Nocardioform placentitis and controls from multiples farms. Generated and delivered sampling kits. Answered enquiries. Obtained information from other States. Organized Website information section. Instrumental in obtaining relief funding of \$90,000 from the Grayson Jockey Club for this project.
- Adam, Emma, Lu, Kristina. Equine Uterine Biome. (November 1, 2018 December 2019). 2 Multiple. 3 participants. TBD.

Description: Proposed collaborative research involving local clinicians and faculty members. A proposal to LMU to engage an LMU student is pending and this work will likely involve multiple faculty members.

Adam, Emma, Arnold, Laura. Continuing Education, website, VDL services survey. (October 16, 2018
 - December 31, 2018). Online. 1000 participants.
 Description: A Qualtrics survey was developed and will be distributed state-wide to better understand our veterinary community's needs.

Teaching

Note: With regards to 2020 TCEs please consider the following from page 121 of the UK Playbook for Fall 2020, "It is essential that performance evaluation take into account the extenuating circumstances brought about by the disruption for faculty in all title series and the extraordinary work accomplished by faculty in response to the disruption. Academic leaders shall reiterate that TCEs should be but one indicator of effective teaching in both periodic merit reviews and tenure/promotion decisions. Evaluation of teaching must go beyond student evaluations alone."

# **Theses and Dissertations**

# **Master's Thesis Committee Chair**

Jordan Parker, Masters Thesis, "Treatment of Fecal Microbial Transfer on Horses Presenting to and Equine Referral Hospital with Colitis.," Status: In-Process, Dr Allen Page., Expected Completion Date: June 30, 2023. (August 1, 2021 - Present).

### Master's Thesis Committee Co-Chair

- MacKenzie Johnson, Masters Thesis, "TBD," Status: In-Process, Dr Allen Page, Expected Completion Date: June 30, 2023. (August 1, 2021 - Present).
- Emma Partridge, Masters Thesis, "Effects of corticosteroid and non steroidal anti-inflammatory drugs on circulating mRNA markers in LPS-induced synovitis.," Status: In-Process, Dr Allen Page, Expected Completion Date: June 30, 2022. (August 1, 2020 Present).

## Directed Student Learning (excluding theses, dissertations)

- Olivia Jacob. Directed Individual/Independent Study. *Effect of Diluent and Storage on Equine Fecal Microbial Transfer Liquid*. Completed (May 2021 - December 2021).
- Courtney Woods. Research Intern Mentor. *Effect of Non-Steroid Antinflammatories on an LPS Model of Equine Synovitis*. Completed (May 2021 August 2021).
- Katlyn Wooton. Research Intern Mentor. *Assessment of tests to detect Leptospirosis in cattle*. Completed (May 2021 - August 2021).
- Rachel Miller. Research Intern Mentor. *Use of Metform in Insulin Dysregulated Horses*. Completed (May 2021 August 2021).
- Gayathri Govindan Vedanayagam. Directed Individual/Independent Study. *Generation of an Interactive Database for Sample Collation and Analysis*. Completed (March 25, 2021 July 1, 2021).
- Devin Bocock. Directed Individual/Independent Study. *Developing a Biobank of Equine Diarrhea Samples*. Completed (February 2021 - May 2021).

- Charisma Cornell. Directed Individual/Independent Study. *Development of an Interactive Map Template for GERC*. Completed (January 1, 2021 May 5, 2021).
- Lily Sutton. Directed Individual/Independent Study. *Developing an Updated Employee Website for GERC*. Completed (January 1, 2021 May 5, 2021).
- Deja Robinson. Directed Individual/Independent Study. *Creation and Cataloging of Inventory of Idiopathic Hepatitis Samples*. Completed (February 2021 May 1, 2021).
- Katlyn Wilson. Internship Advisor. *Development of tools for emergent equine health crises*.. Completed (January 15, 2021 - May 1, 2021).

Description: Development of tools for emergent equine health crises.

Jordan Parker. Internship Advisor. *Developing action plans for emergent equine healthcare investigations*.. Completed (August 15, 2020 - December 1, 2020).

Description: ESM internship to design, develop and oversee research internship Jessie Parsons. Directed Individual/Independent Study. *Effect of Storage on Equine Fecal* 

Microbial Transfer Liquid. Completed (May 2020 - August 2020). Description: Design, develop and execute research project

Casey Wallace. Internship Advisor. *Actual versus estimated weights in Thoroughbreds*. Completed (August 2019 - December 2019).

Description: Designed, developed and executed a research project internship

- Erica Yopp. Directed Individual/Independent Study. Effect of Antibiotics of the Cellulolytic Bacteria in the Feces of Suckling Foals. Completed (May 2019 - August 2019).
   Description: Hosting LMU summer research student for project design, execution and completion.
- Michela Bernarding. Internship Advisor. *The effect of antibiotics on the in vitro digestion of food substrates by equine fecal microbiota*. Completed (May 2019 August 2019). Description: Development, design and execution of a research project internship

### **Academic Advising**

30 Spring 2019-2020, 3 undergraduate students advised.

10 Fall 2018-2019, 2 graduate student advised, 1 professional students advised, Assisting the use of data and cell resources that I contributed to the MacLeod Lab during my PhD. Teaching students' techniques.

### **Other Credit and Non-Credit Instructional Activities**

Description: Generate project descriptions with Faculty to disseminate amongst LMU veterinary students. developed website page to host this information, FAQs. Generated information video highlighting projects, students, faculty, facilities and life in Lexington at UK. Liaison person for LMU in this endeavor.

#### **Continuing Education**

Environment and Feeding Management for Equine Asthma - The Big Dust Up, Participants: Professionals, 104, (December 1, 2020)

Description: 1 h AASVB RACE accredited online CE for veterinarians and equine stakeholders. Sponsorship obtained to fund speaker honoraria.

Participants: Professionals, 124, (November 17, 2020)

Description: 1 h AASVB RACE accredited online CE for veterinarians and equine stakeholders. Sponsorship obtained to fund speaker honoraria.

Participants: Professionals, 137, (November 10, 2020)

Description: 1 h AASVB RACE accredited online CE for veterinarians and equine stakeholders. Sponsorship obtained to fund speaker honoraria.

Participants: Professionals, 124, (November 3, 2020)

Description: 1 h AASVB RACE accredited online CE for veterinarians and equine stakeholders. Sponsorship obtained to fund speaker honoraria.

Participants: Professionals, 54, (May 28, 2020)

Description: 1h CE to inform veterinarians and equine stakeholders of new developments and technology in equine management, biosecurity and horse traceability.

Participants: Professionals, 87, (January 16, 2020)

Description: 4 hours of AAVSB RACE continuing education for equine professionals. Sponsorship obtained for lunch and refreshments. Event streamed live to Breathitt Veterinary Center.

Participants: Professionals, 113, (October 15, 2019)

Description: 5 hours of AAVSB RACE accredited CE for equine professionals. Sponsorship obtained for lunch and refreshments. Event streamed live to Breathitt Veterinary Center.

Sport Horse Medicine, Participants: Professionals, 92, (August 19, 2019)

Description: 4 hours of AAVSB RACE accredited CE for equine professionals. Sponsorship obtained for lunch and refreshments. Event streamed live to Breathitt Veterinary Center.

Participants: Professionals, 90, (January 25, 2019)

Description: Four hours of AAVSB RACE accredited CE for Veterinarians and interested stakeholders. Sponsorship obtained to provide lunch and refreshments. Event streamed live to Breathitt Veterinary Center.

### **Course Director/Coordinator - Scheduled**

Independent Study, Participants: Undergraduate Students, 1, (August 15, 2019)

Description: Student worked with my mentoring and supervision in a research setting.

# **Developing Undergraduate Opportunities & Showcase Judge**

ESM Internship,

Description: In coordination with Ms. Savannah Robin I have helped to develop novel internship opportunities for our undergraduates.

#### Guest Lecture

Equine Science and Management, Participants: Undergraduate Students, 50,

Description: Interview practice, each semester with students as arranged.

Issues In Agriculture, Participants: Undergraduate Students, 150, (December 1, 2021)

Description: Introduce students to Veterinary Science, the Gluck Equine Research Center and Equine Research. Multiple classes.

Introduction to Careers in the Equine Industry, (April 12, 2021)

Genetics of Horses, Participants: Undergraduate Students, 20, (October 18, 2018)

Description: Genetic of Horses

### Management/Executive Development

(December 1, 2021)

Description: Development of format for the research day format and recruitiment of judges.

### **Research Day**

Participants: Professional Student, 300, (November 15, 2019)

Description: Day showcasing research activity of veterinary students and recruitment opportunity for new students to come to UK for research projects.

### Small Group Learning

Activity Type: Small Group, Participants: Undergraduate Students, 2, (December 2020) Description: Weekly hosting of meeting (in-person and Zoom) with staff member and two UK students learning IT/marketing/outreach skills.

# Service

# **Department Service**

## **Co-coordinator**

Med Center Donations: CoVID-19, (March 2020 - May 2020). Co-host

Organize and help to host, record and curate recordings of Dr Barry Ball's Nocardioform Placentitis workshop., (September 25, 2020).

### **Committee Chair**

Social Media Committee, (July 1, 2018 - Present). Committee Member

Equine Extension Committee, (January 1, 2019 - Present).

Animal Resources Committee - Facilities, (January 2020 - December 2020).

# **College Service**

### **Committee Member**

Equine Science Review publication editorial board member., (April 2020 - December 2020).

# **University Service**

Editor and Writer for Equine Science Review, (May 2020 - Present).

Represent the University at KTFMC meetings., (January 2020 - December 2021). Committee Member

Search Committee: Chair of the Department of Veterinary Science and Director of the Gluck Equine Research Center, (November 1, 2021 - October 31, 2022).

Albert Clay Endowed Chair in Reproduction Search Committee, (August 1, 2021 - August 31, 2022).

### **Conference Organizer/Coordinator**

Equine Rotavirus Workshop, (July 19, 2021).

# Veterinary Member of Committee

UK Animal Care and Use Committee, (June 2020 - Present).

UK Polo Team, (January 2020 - December 2020).

All Undergraduate Student Call Campaign - Handling COVID & Online Tuition Transition., (April 20, 2020 - August 2020).

Co-host Dr Alan Guthrie, Markey Chair candidate, (March 18, 2020).

Host visiting scholar, (February 24, 2020 - February 25, 2020).

Represent UK CAFE at KY World Trade Center Conference, (February 7, 2019).

# **Professional Service**

### **Board of Directors of a Company**

American Association of Equine Practitioners, Nominated and membership voted to be on the Board of Directors. Also Liaison Officer to the Racing Committee., (December 2020 -December 2024).

### Chairperson

AAEP, Educational Panel with AAEP for prospective Equine Veterinarians, (August 15, 2021). Committee Chair

ACVS, Develop online poster presentation committee and novel online format for grading., (October 2020).

#### **Committee Member**

Grayson Jockey Club Research Advisory Committee, Review research grant applications., (September 2020 - Present).

Kentucky Association of Equine Practitioners, Board of Directors Member, (July 2018 - Present).

American College of Veterinary Surgeons, Educational Programs Committee: organize the 4 day international 2022 meeting, moderate sessions during the 2021 meeting, (October 2020 - October 2024).

### **Conference-Related**

- International Equine Infectious Disease Committee, Organize a last minute change from an in-person format to a virtual format, (September 27, 2021 October 1, 2021).
- ACVS, Organize, moderate, recruit and oversee judging of the poster session., (January 2020 October 2020).

### Interaction with Industry

RMTC, Provide Regulatory Veterinarian CE. UKY partnered with RMTC organizer Dr Mary Scollay to provide organizational skill, zoom capability and technical services., (March 2, 2021 - June 15, 2021).

Deputy State Veterinarian Interview, (April 9, 2020). Program Organizer

Pan American Society for Pigment Cell Research, Organize and orchestrate equine day of talsk for this international meeting, (September 22, 2021 - September 25, 2021).

Tex Cauthen Workshop Planning Committee, (January 24, 2021).

### **Reviewer, Grant Proposal**

RMTC, Review research proposals, (October 1, 2019 - June 2020).

# **Public Service**

### **Program Organizer**

Gluck Equine Research Center, Coordinated, collected, inventoried and delivered PPE for UK Hospital Personnel during COVID crisis PPE shortage., (March 2020 - May 2020).

# Consulting

Academic, Faculty. (July 1, 2018 - Present).

Business and Industry, Merck Animal Health. (July 2021 - Present).

Business and Industry, Rusty Ford, USDA, Lexington, United States. (August 14, 2019 - August 15, 2019).

Description: Assisting with generating industry presentations for a USDA veterinary training meeting on CEM and other diseases relevant to the equine health industry. Attend the meeting to help with questions.

Business and Industry, Connect Drs MacLeod, Janes and Kennedy with Kiki Cortelis at Town and Country Farm and her vet, Dr Jim Morehead. (January 23, 2019). Description: Introductions.

# **Media Contributions**

### Internet

"The Horse Equine Innovators Podcast." (December 22, 2021). Podcast.

"TVG." (January 15, 2020). Short video on equine colic., Other / Multiple Countries.

#### Newspaper

"Midway Messenger." (February 2020). Interviewed on two occasions to provide information to UK Journalism student on the subject of Nocardioform Placentitis. Post interview multiple follow up emails over the following months for a second article generated in May 2020.

### Radio

"Horsetales." (May 15, 2021). Discussion of Gluck Equine Resaerch Contribution to current investigation in novel equine rotavirus.

"Horse Tales." (January 2020). Interviewed to discuss Nocardioform Placentitis as a representative of the CAFE.

# **Professional Development**

#### **Professional Memberships**

Kentucky Veterinary Medical Association. Regional. (September 1, 2019 - Present).

Kentucky Association of Equine Practitioners. State. (January 1, 2019 - Present).

American Veterinary Medical Association. National. (January 1, 2015 - Present).

American Association of Equine Practitioners. International. (July 1, 2012 - Present).

American College of Veterinary Surgeons. International. (January 1, 2008 - Present).

American College of Veterinary Internal Medicine. National. (July 1, 2004 - Present).

Royal College of Veterinary Surgeons. International. (July 31, 1993 - Present).

#### **Development Activities Attended**

#### **Conference Attendance**

American Association of Equine Practitioners. (December 3, 2021 - December 8, 2021). AAEP. International. Nashville, TN. Gain up to date veterinary knowledge, meet with colleagues, sponsors, program supporters and stakeholders.

- ACVS Surgical Summit. (October 7, 2021 October 10, 2021). ACVS. International. Online CE program
- (December 2020). American Association of Equine Practitioners. International.
- (September 2020 October 2020). ACVS Surgical Summit. International. American College of Veterinary Surgeons.
- American Association of Equine Practitioners Convention. (December 7, 2019 December 10, 2019). AAEP. International. Denver, CO, United States.
   Internationally attended meeting with many KY stakeholders present. I participate on the Racing Committee panel, and am giving a talk this year.
- ACVS Surgical Summit. (October 17, 2019 October 20, 2019). ACVS. International. Las Vegas, NV, United States.

Cutting edge research and presentations in the field of veterinary surgery.

- Mid America Veterinary Meeting. (October 5, 2019). KVMA. Regional. Louisville, KY, United States.
- British Equine Veterinary Association Annual Meeting. (September 13, 2019 September 14, 2019).
  BEVA. International. Birmingham, United Kingdom.
  Equine Veterinary talks and research abstracts.
- Conference for GI Function. (April 14, 2019 April 17, 2019). CGIF. International. Chicago, IL, United States.

Microbiologists and animal scientists gathered for a conference on GI functions and microbiology

### Workshop

Lead - A leadership workshop. (October 16, 2021 - October 17, 2021). AAEP. National. Lexington, KY.

Leadership skills workshop.

#### **Licensures and Certifications**

#### Licensure

Veterinarian, Number: 146947. (August 1, 2012 - Present).

# Dr. Amanda A. Adams

College of Agriculture, Food and Environment Department of Veterinary Science 2016-2022 CV

### Education

PHD, Univ Of Kentucky, 2008. Major: Veterinary Sciences/Veterinary Clinical Sciences, General

BS, Stephens College, 2003. Major: Biology/Biological Sciences, General

# **Research and Scholarship**

#### **Intellectual Contributions**

\* = Senior Author ~ = Corresponding Author + = Grad/Prof Student # = Post Doc ^ = Undergraduate
 WOS = Web of Science JIF = Journal Impact Factor TC = Journal Total Cites
 SNIP = Source Normalize Impact per Paper SJR = Scimago Journal Rank

#### Published

#### Book, Chapter

Adams, A. A., Horohov, D. W. (2018). T cell responses in Horses: Immunosenescence Handbook of Immunosenescence, Springer Meteor Publishing(2nd Edition).

#### Book, Chapter in Scholarly Book-New

Adams, A. A., Horohov, D. W. (2016). The Immune System of the Older Horse EQUINE CLINICAL IMMUNOLOGY, 23-29.

#### **Extension Publication- Numbered, Original Content**

\* Adams, A. (2018). Commentary: Are Equine Insect Bite Hypersensitivity Immunotherapies on the Horizon? *Equine Disease Quarterly, Equine Disease Quarterly*, 27(3), 1.

Miller, A. B., Loynachan, A., \* Adams, A. (2017). Causes of Mortality in Aged Horses in Kentucky., *Equine Disease Quarterly*, 26(2), 1.

#### Journal Article, Academic Journal

Lyn Macon, E., Harris, P., Partridge, E., Day Barker, V., Adams, A. A. (2021). Effect of Dose and Fasting on Oral Sugar Test Responses in Insulin Dysregulated Horses, *Journal of Equine Veterinary Science*, 107. doi: 10.1016/j.jevs.2021.103770
Scopus Metric Year: 2020 | Category: Equine | CiteScore: 1.8 | Highest Percentile: 50 | Rank: #/N: 4/7 | SNIP: 0.871 | SJR: 0.413

- Turner, S., Barker, V. D., Adams, A. A. (2021). Effects of Cannabidiol on the In Vitro Lymphocyte Pro-Inflammatory Cytokine Production of Senior Horses, *Journal of Equine Veterinary Science*, 103. doi: 10.1016/j.jevs.2021.103668
  Scopus Metric Year: 2020 | Category: Equine | CiteScore: 1.8 | Highest Percentile: 50 | Rank: #/N: 4/7 | SNIP: 0.871 | SJR: 0.413
- Miller, A. B., Harris, P. A., Barker, V. D., Adams, A. A. (2021). Short-term transport stress and supplementation alter immune function in aged horses, *PLoS ONE*, 16(8 August). doi: 10.1371/journal.pone.0254139
  WOS Metric Year: 2021 | JIF: 3.24 | TC: 857723
  Scopus Metric Year: 2020 | Category: Multidisciplinary | CiteScore: 5.3 | Highest Percentile: 92 | Rank: #/N: 9/110 | SNIP: 1.349 | SJR: 0.99

Miller, A. B., Loynachan, A. T., Barker, V. D., Adams, A. A. (2021). Investigation of innate immune function in adult and geriatric horses, *Veterinary Immunology and Immunopathology*, 235. doi: 10.1016/j.vetimm.2021.110207
WOS Metric Year: 2021 | JIF: 2.046 | TC: 7472
Scopus Metric Year: 2020 | Category: Veterinary (all) | CiteScore: 3.3 | Highest Percentile: 88 | Rank: #/N: 22/183 | SNIP: 0.844 | SJR: 0.633

Miller, A. B., Loynachan, A. T., Bush, H. M., Hart, K. A., Barker, V. D., Campana-Emard, A. G., Grubbs, S. T., Adams, A. A. (2021). Effects of pituitary pars intermedia dysfunction and Prascend (pergolide tablets) treatment on endocrine and immune function in horses, *Domestic Animal Endocrinology*, 74. doi: 10.1016/j.domaniend.2020.106531
WOS Metric Year: 2021 | JIF: 2.29 | TC: 2527
Scopus Metric Year: 2020 | Category: Animal Science and Zoology | CiteScore: 3.2 | Highest Percentile: 78 | Rank: #/N: 92/416 | SNIP: 1.088 | SJR: 0.618

Macon, E. L., Harris, P., Bailey, S., Barker, V. D., Adams, A. A. (2021). Postprandial insulin responses to various feedstuffs differ in insulin dysregulated horses compared with non-insulin dysregulated controls, *Equine Veterinary Journal*. doi: 10.1111/evj.13474 WOS Metric Year: 2021 | JIF: 2.888 | TC: 9380
Scopus Metric Year: 2020 | Category: Equine | CiteScore: 4 | Highest Percentile: 78 | SNIP: 1.82 | SJR: 0.82

- + Altman, A. W., + Kudupoje, M. B., Adams, A. A., McLeod, K. R., \* ~ Vanzant, E. S. (2020). Influence of chute exit velocity and fescue toxicosis on steer grazing and finishing growth, immune responses, and carcass characteristics, *Journal of Animal Science Research*, 4(3), 12. doi: doi.org/10.16966/2576-6457.146
- Fagan, M. M., Harris, P., Adams, A. A., Pazdro, R., Krotky, A., Call, J., Duberstein, K. J. (2020).
  Form of Vitamin E Supplementation Affects Oxidative and Inflammatory Response in Exercising Horses, *Journal of Equine Veterinary Science*, 91. doi: 10.1016/j.jevs.2020.103103
  WOS Metric Year: 2021 | JIF: 1.583 | TC: 3273
  Scopus Metric Year: 2020 | Category: Equine | CiteScore: 1.8 | Highest Percentile: 50 | SNIP: 0.871 | SJR: 0.413
- Zak, A., Siwinska, N., Elzinga, S., Barker, V. D., Stefaniak, T., Schanbacher, B. J., Place, N. J., Niedzwiedz, A., Adams, A. A. (2020). Effects of advanced age and pituitary pars intermedia

dysfunction on components of the acute phase reaction in horses, *Domestic Animal Endocrinology*, 72. doi: 10.1016/j.domaniend.2020.106476 WOS Metric Year: 2021 | JIF: 2.29 | TC: 2527 Scopus Metric Year: 2020 | Category: Animal Science and Zoology | CiteScore: 3.2 | Highest Percentile: 78 | Rank: #/N: 92/416 | SNIP: 1.088 | SJR: 0.618

Zak, A., Siwinska, N., Elzinga, S., Barker, V. D., Stefaniak, T., Schanbacher, B. J., Place, N. J., Niedzwiedz, A., Adams, A. A. (2020). Effects of equine metabolic syndrome on inflammation and acute-phase markers in horses, *Domestic Animal Endocrinology*, 72. doi: 10.1016/j.domaniend.2020.106448
WOS Metric Year: 2021 | JIF: 2.29 | TC: 2527
Scopus Metric Year: 2020 | Category: Animal Science and Zoology | CiteScore: 3.2 | Highest Percentile: 78 | Rank: #/N: 92/416 | SNIP: 1.088 | SJR: 0.618

+ ~ Steuer, A. E., Stewart, J. C., Barker, V. D., Adams, A. A., \* Nielsen, M. K. (2020). Cytokine and goblet cell gene expression in equine cyathostomin infection and larvicidal anthelmintic therapy, *Parasite Immunology*, 42(6). doi: 10.1111/pim.12709
WOS Metric Year: 2021 | JIF: 2.28 | TC: 3484
Scopus Metric Year: 2020 | Category: Parasitology | CiteScore: 4 | Highest Percentile: 63 | Rank: #/N: 24/65 | SNIP: 0.806 | SJR: 0.795

Żak, A., Siwińska, N., Chełmecka, E., Bażanów, B., Romuk, E., Adams, A. A., Niedźwiedź, A., Stygar, D. (2020). Effects of advanced age, pituitary pars intermedia dysfunction and insulin dysregulation on serum antioxidant markers in horses, *Antioxidants*, 9(5). doi: 10.3390/antiox9050444
WOS Metric Year: 2021 | JIF: 6.312 | TC: 9076
Scopus Metric Year: 2020 | Category: Physiology | CiteScore: 4.5 | Highest Percentile: 55 | Rank: #/N: 76/169 | SNIP: 1.624 | SJR: 1.067

Siard-Altman, M. H., Harris, P. A., Moffett-Krotky, A. D., Ireland, J. L., Betancourt, A., Barker, V. D., McMurry, K. E., Reedy, S. E., Adams, A. A. (2020). Relationships of inflamm-aging with circulating nutrient levels, body composition, age, and pituitary pars intermedia dysfunction in a senior horse population, *Veterinary Immunology and Immunopathology*, 221. doi: 10.1016/j.vetimm.2020.110013
WOS Metric Year: 2021 | JIF: 2.046 | TC: 7472
Scopus Metric Year: 2020 | Category: Veterinary (all) | CiteScore: 3.3 | Highest Percentile:

Scopus Metric Year: 2020 | Category: Veterinary (all) | CiteScore: 3.3 | Highest Percentile: 88 | Rank: #/N: 22/183 | SNIP: 0.844 | SJR: 0.633

Fedorka, C. E., Loux, S. L., Scoggin, K. E., Adams, A. A., Troedsson, M. H.T., \* ~ Ball, B. A. (2020). Alterations in T cell-related transcripts at the feto-maternal interface throughout equine gestation, *Placenta*, 89, 78-87. doi: 10.1016/j.placenta.2019.10.011
WOS Metric Year: 2021 | JIF: 3.481 | TC: 11792
Scopus Metric Year: 2020 | Category: Obstetrics and Gynecology | CiteScore: 5.5 | Highest Percentile: 87 | Rank: #/N: 22/176 | SNIP: 1.209 | SJR: 1.259
Author Role: Troedsson: Interpretation of data, preparation and final approval of manuscript.

Elzinga, S. E., Betancourt, A., Stewart, J. C., Altman, M. H., Barker, V. D., Muholland, M., Bailey, S., Brennan, K. M., Adams, A. A. (2019). Effects of Docosahexaenoic Acid–Rich Microalgae

Supplementation on Metabolic and Inflammatory Parameters in Horses With Equine Metabolic Syndrome, *Journal of Equine Veterinary Science*, 83. doi: 10.1016/j.jevs.2019.102811

Fedorka, C. E., \* ~ Ball, B. A., Scoggin, K. E., Loux, S. C., Troedsson, M. H.T., Adams, A. A. (2019). The feto-maternal immune response to equine placentitis, *American Journal of Reproductive Immunology*, 82(5). doi: 10.1111/aji.13179 | JIF: 2.739 Author Role: Troedsson: Interpretation of data, preparation and approval of manuscript

roedsson: interpretation of data, preparation and approval of manuscript

+ Loos CMM, + Dorsch, S. C., + Elzinga, S. E., Brewster-Barnes, T., Vanzant, E. S., Adams, A. A., \* ~ Urschel, K. L. (2019). A high protein meal affects plasma insulin concentrations and amino acid metabolism in horses with equine metabolic syndrome., *Veterinary journal (London, England : 1997)*, 251, 105341. doi: 10.1016/j.tvjl.2019.105341

WOS Metric Year: 2019 | Category:Veterinary Sciences | JIF: 2.115 | Rank by JIF: 25/141 | TC: 8465 | Rank by TC: 9/141

Author Role:Dr. Caroline Loos worked with other contributors to design the study and had the primary responsibility for conducting all sample collection and analysis procedures, interpreting the results and preparing the manuscript, as a part of her PhD program. Sophie Dorsch provided technical assistance with sample collection and analysis procedures. Dr. Sarah Elzinga Provided technical assistance with sample collection and the interpretation of the results.

Tammy Brewster-Barnes provided technical assistance with sample collection and analysis procedures.

Dr. Eric Vanzant provided expertise in statistical analysis and data interpretation.

Dr. Amanda Adams assisted with study design and data interpretation.

Dr. Kristine Urschel provided expertise in study design, data interpretation and assistance with manuscript preparation.

# Fedorka, C. E., Ball, B. A., Scoggin, K. E., Loux, S. C., Troedsson, M. H. T., \* # Adams, A. A. (2019). The feto-maternal immune response to equine placentitis., *Am J Reprod Immunol.*, e13179. doi: 10.1111/aji.13179(Aug 2). | JIF: 3.091

Fedorka, C. E., \* ~ Ball, B. A., Walker, O. F., Conley, A. J., Corbin, C. J., Lu, K. G., Hanneman, J. M., Troedsson, M. H.T., Adams, A. A. (2019). Alteration of the mare's immune system by the synthetic progestin, altrenogest, *American Journal of Reproductive Immunology*, 82(2). doi: 10.1111/aji.13145 | JIF: 2.739
Author Role:
Troedsson: Conceptualization, study design, interpretation of data, preparation and approval of of manuscript

# Fedorka, C. E., Ball, B. A., Walker OF, Conley, A. J., Corbin, C. J., Lu, K. G., Hanneman, J. M., Troedsson, M. H. T., \* Adams, A. A. (2019). Alteration of the mare's immune system by the synthetic progestin, altrenogest., *Am J Reprod Immunol.*, 82(2). | JIF: 3.091

Lou, Y., Siard, M., Adams, A., Keowen, M., Miller, T., Garza, F., Andrews, F., \* Seeram, N. (2018). Simultaneous quantification of free curcuminoids and their metabolites in equine plasma by LC-ESI-MS/MS., *Journal of Pharmaceutical Biomedical Analysis*, 154, 31-39. doi: 10.1016/j.jpba.2018.03.014. | JIF: 2.831

- + Elzinga, S., Reedy, S., Barker, V., Chambers, T. M., \* Adams, A. A. (2018). Humoral and cell-mediated immune responses to influenza vaccination in Equine Metabolic Syndrome (EMS) horses Lexington, *Veterinary Immunology and Immunopathology*, 199, 32-38. doi: 10.1016/j.vetimm.2018.01.007 | JIF: 1.632
- + Elzinga, S. E., + Rohleder, B., Schanbacher, B., McQuerry, K., Barker, V. D., \* Adams, A. A. (2017). Metabolic and inflammatory responses to the common sweetener stevioside and a glycemic challenge in horses with equine metabolic syndrome, *Domestic Animal Endocrinology*, 60(July), 1-8. doi: 10.1016/j.domaniend.2017.01.001. | JIF: 1.644
- Elzinga, S. E., Weese, J. S., Adams, A. A. (2016). Comparison of the Fecal Microbiota in Horses With Equine Metabolic Syndrome and Metabolically Normal Controls Fed a Similar All-Forage Diet, *JOURNAL OF EQUINE VETERINARY SCIENCE*, 44, 9-16. doi: 10.1016/j.jevs.2016.05.010
- Siard, M. H., McMurry, K. E., Adams, A. A. (2016). Effects of polyphenols including curcuminoids, resveratrol, quercetin, pterostilbene, and hydroxypterostilbene on lymphocyte pro-inflammatory cytokine production of senior horses in vitro, VETERINARY IMMUNOLOGY AND IMMUNOPATHOLOGY, 173, 50-59. doi: 10.1016/j.vetimm.2016.04.001
- Elzinga, S., Wood, P., Adams, A. A. (2016). Plasma Lipidomic and Inflammatory Cytokine Profiles of Horses With Equine Metabolic Syndrome, *JOURNAL OF EQUINE VETERINARY SCIENCE*, 40, 49-55. doi: 10.1016/j.jevs.2016.01.013
- Adams, A. A., Elzinga, S., Lyman, J., Little, J. (2016). Effects of an Immunostimulant Containing Propionibacterium acnes (EqStim) on Cell-Mediated Immunity and Nasal Shedding of Respiratory Pathogens Using a Model of "Weaning" Stress in Foals, JOURNAL OF EQUINE VETERINARY SCIENCE, 38, 72-81. doi: 10.1016/j.jevs.2015.12.013

### Accepted

### Journal Article, Academic Journal

- Herbst, A. C., Johnson, M. G., Gammons, H., Reedy, S., Urschel, K. L., Harris, P. A., Adams, A. A. Date Accepted: (July, 2021). Development and evaluation of a muscle atrophy scoring system (MASS) for horses. Journal of Equine Veterinary Science.
  Scopus Metric Year: 2020 | Category: Equine | CiteScore: 1.8 | Highest Percentile: 50 | Rank: #/N: 4/7 | SNIP: 0.871 | SJR: 0.413
- + Elzinga, S. E., Betancourta, A., Stewart, C., Altman, M. H., Barker, V. D., Muholland, M., Bailey, S., Brennan, K. M., \* Adams, A. A. Date Accepted: (October, 2019). Effects of docosahexaenoic acid (DHA)-rich microalgae supplementation on metabolic and inflammatory parameters in horses with equine metabolic syndrome. Journal of Equine Veterinary Science. | JIF: 0.927

### **Sponsored Projects**

### Awarded

Adams A., A., Mars Equestrian Scholar Research on Equine Endocrine Disorders of Pituitary Pars Intermedia (PPID), Equine Metabolic Syndrome (EMS)/Obesity/Laminitis and Geriatric Horse Healthcare/Nutritional Management, Sponsored by Mars Petcare US Incorporated Submitted: December 19, 2019. Funding Dates: December 10, 2019 - August 1, 2024. | Awarded: \$120,000.00

OSPA ID: 201912191050

- Adams A., A., Effects of Dietary Industrial Hempseed Products (IHP) on Equine Health, Sponsored by Enhanced Pet Sciences Submitted: January 19, 2018. Funding Dates: July 1, 2018 - May 31, 2022. | Awarded: \$419,924.00
  OSPA ID: 201801191153
- Adams A., A., Understanding the Effects of Varying Nutrient Content in Forage on Postprandial Insulin Responses in Equine Metabolic Syndrome horses, Sponsored by Morris Animal Foundation Submitted: July 10, 2019. Funding Dates: May 1, 2020 - January 1, 2022. | Awarded: \$39,335.00

OSPA ID: 201907101555

Adams A., A., Research on Equine Endocrine Disorders of Pituitary Pars Intermedia (#PPI#), Equine Metabolic Syndrome/obesity/laminitis and Geriatric Horse Healthcare/nutritional Management., Sponsored by Mars Horsecare UK Limited Submitted: June 3, 2016. Funding Dates: September 20, 2016 - January 1, 2022.Requested: \$220,000.00, | Awarded: \$165,000.00 OSPA ID: 201606030802

#### Closed

 Nielsen M., K., Adams A., A., Larvicidal Versus Non-Larvicidal Treatment of Cyathostomin Parasites: Immunologic and Histologic Reactions to Macrocyclic Lactone Treatment, Sponsored by Zoetis LLC Submitted: December 14, 2018. Funding Dates: July 1, 2019 - June 30, 2021. | Awarded: \$236,914.00

OSPA ID: 201812141536

- Adams A., A., Nielsen M., K., To Determine the Effects of Diamond V XPC Supplementation on Immune Function in Senior Horses, Sponsored by Diamond V Submitted: April 6, 2018.
  Funding Dates: July 1, 2018 - July 31, 2019. | Awarded: \$25,781.00 OSPA ID: 201804060849
- Adams A., A., Effects of Pergolide Treatment on Metabolic and Immunological Function in Horses with Pituitary Pars Intermedia Dysfunction (PPID), Sponsored by Boehringer Ingelheim Vetmedica Submitted: September 8, 2017. Funding Dates: October 1, 2017 -January 1, 2019.Requested: \$79,731.00, | Awarded: \$79,731.00 OSPA ID: 201709080904
- Nielsen M., K., Adams A., A., The Role of Moxidectin in Worm Expulsion, Sponsored by Zoetis LLC Submitted: June 15, 2018. Funding Dates: August 1, 2018 - December 31, 2018.Requested: \$35,801.00, | Awarded: \$35,801.00
  OSPA ID: 201806151353
- Adams A., A., To Determine the Effects of Probiotic Supplementation (EquiBrew) on Immune, Metabolic and Microbiome Changes in Senior Horses, Sponsored by BioBrew Ltd Submitted: August 15, 2017. Funding Dates: August 29, 2017 - August 28, 2018.Requested: \$13,351.00, | Awarded: \$13,351.00
  OSPA ID: 201708151126
- Adams A., A., Effect of Deodorase 2X Supplementation on Joint Health and Markers of Systemic Inflammation in Older Horses, Sponsored by Alltech Incorporated Submitted: September 7,

2017. Funding Dates: February 26, 2018 - July 25, 2018.Requested: \$17,664.00, | Awarded: \$17,664.00

OSPA ID: 201709071314

Adams A., A., Student Sponsorship by Alltech for Sarah Elzinga, Sponsored by Alltech Incorporated Submitted: January 27, 2014. Funding Dates: January 15, 2014 - August 1, 2017. | Awarded: \$111,276.00
OSPA ID: 201401270844

Adams A., A., Effect of Alltech Algae derived FA supplementation on inflammation and metaoblic parameters of the EMS horse., Sponsored by Alltech Incorporated Submitted: January 27, 2014. Funding Dates: May 1, 2014 - May 31, 2017. | Awarded: \$93,380.00

- OSPA ID: 201401270853
- Adams A., A., Effect of yeast cell wall (ActigenTM) supplementation on metabolic, inflammatory, and microbiota changes in EMS vs control horses, Sponsored by Alltech Incorporated Submitted: February 12, 2016. Funding Dates: May 1, 2016 May 1, 2017.Requested:
  \$24,586.00, | Awarded: \$25,000.00
  OSPA ID: 201602120914
- Adams A., A., Horohov D., W., Do Horses With Equine Metabolic Syndrome (EMS) Have Reduced Immune Responses to Vaccination?, Sponsored by American Quarter Horse Foundation Submitted: October 13, 2014. Funding Dates: October 1, 2015 - September 30, 2016. | Awarded: \$19,121.00

OSPA ID: 201410131611

### Not Funded

- Adams A., A., Urschel K., L., A Prospective Study Evaluating the Seasonal Inflammatory Responses to a Metabolic Challenge and the Risk for the Development of Endocrinopathy-Associated Laminitis, Sponsored by National Institute of Food and Agriculture Submitted: July 12, 2016.Requested: \$497,988.00, | Awarded: \$0.00 OSPA ID: 201607121313
- Ball B., A., Adams A., A., An evaluation of the effect of altrenogest on the immune system of the mare, Sponsored by Grayson Jockey Club Research Foundation Inc Submitted: October 2, 2017.Requested: \$106,467.00, | Awarded: \$0.00
   OSPA ID: 201710021006
- Ball B., A., Adams A., A., Determination of immunosuppression by altrenogest in the pregnant mare, Sponsored by American Quarter Horse Foundation Submitted: October 29, 2017. | Awarded: \$0.00

OSPA ID: 201710291439

Urschel K., L., Adams A., A., Effects of Equine Metabolic Syndrome on Skeletal Muscle Signaling Pathways Associated with Muscle Protein Synthesis and Degradation, Sponsored by American Quarter Horse Foundation Submitted: October 28, 2016.Requested: \$52,733.00, | Awarded: \$0.00

OSPA ID: 201610281141

- Adams A., A., Effects of Melatonin Regulation by Blue Light Therapy on ACTH and Immune Function in Horses with Pituitary Pars Intermedia Dysfunction (PPID), Sponsored by American Quarter Horse Foundation Submitted: October 29, 2017. | Awarded: \$0.00 OSPA ID: 201710291437
- Chambers T., M., Adams A., A., Bailey E., F., Horohov D., W., Nielsen M., K., Equine Interferon-lambda, Sponsored by National Institute of Food and Agriculture Submitted: July 11, 2016.Requested: \$499,857.00, | Awarded: \$0.00
   OSPA ID: 201607111318

- Ball B., A., Adams A., A., Evaluation of the Effect of Natural and Synthetic Progestins on the Immune System of the Pregnant Mare, Sponsored by Grayson Jockey Club Research Foundation Inc Submitted: October 1, 2018. | Awarded: \$0.00
   OSPA ID: 201810011605
- Adams A., A., Improved diagnostics for equine Pituitary Pars Intermedia Dysfunction, Sponsored by Queensland University of Technology Submitted: December 21, 2017.Requested:
   \$1,600,000.00, | Awarded: \$0.00
   OSPA ID: 201712211234
- Adams A., A., Investigating the Progression of Early and Advanced Pituitary Pars Intermedia Dysfunction (PPID) and the Impact of Stage on Immune Function in Horses, Sponsored by Morris Animal Foundation Submitted: July 12, 2018.Requested: \$141,605.00, | Awarded: \$0.00

OSPA ID: 201807121053

- Farrell A., Adams A., A., Adedeji A., A., Adedokun S., A., Howe D., K., Jones K., R., Perry S., E., Tanaka K., Urschel K., L., Vaillancourt L., J., Zimmerman J., N., ITEST Exploratory: Agriculture STEM Mentorships for Underrepresented High School Students, Sponsored by National Science Foundation Submitted: August 12, 2018.Requested: \$400,000.00, | Awarded: \$0.00 OSPA ID: 201808121527
- Adams A., A., Meeting the Unmet Need: Nutritional Strategies for the Management of Insulin Dysregulation Associated with Equine Metabolic Syndrome (EMS), Sponsored by National Institute of Food and Agriculture Submitted: July 25, 2018.Requested: \$476,898.00, | Awarded: \$0.00

OSPA ID: 201807251215

- Adams A., A., Chambers T., M., Horohov D., W., Obesity and Metabolic Syndrome: Effects of the gut microbiome on lung immunity and host defense, Sponsored by National Institute of Health Submitted: September 26, 2016.Requested: \$945,000.00, | Awarded: \$0.00 OSPA ID: 201609261453
- Adams A., A., The Effect of Total Replacement With BIOPLEX Minerals On Response to a Vaccine Challenge in Horses., Sponsored by Alltech Incorporated Submitted: October 11, 2017.Requested: \$80,141.00, | Awarded: \$0.00
  OSPA ID: 201710111119
- Adams A., A., Urschel K., L., Understanding Seasonal Influences on Inflammation and Insulin Dysregulation Using an Oral Sugar Test in Horses with Endocrine Disorders, Sponsored by Morris Animal Foundation Submitted: July 11, 2016.Requested: \$200,767.00, | Awarded: \$0.00

OSPA ID: 201607110925

### Pending

- Adams A., A., Effects of IA Administration of TCA on Systemic ID in Horses, Sponsored by Ohio State University Submitted: September 30, 2021.Requested: \$61,283.00, | Awarded: \$0.00 OSPA ID: 202109300907
- Adams A., A., Optimization and Validation Testing of a POC test for Equine Insulin, Sponsored by Antech Diagnostics Incorporated Submitted: November 23, 2021.Requested: \$201,320.00, | Awarded: \$0.00

OSPA ID: 202111231724

 Adams A., A., The Effects of Oral Sirolimus on Insulin Dynamics in Horses with Naturally-occurring ID, Sponsored by Pennsylvania State University Submitted: September 30, 2021.Requested: \$57,457.00, | Awarded: \$0.00
 OSPA ID: 202109300906

### **Scope Grants**

#### Closed

Adams A., A., Horohov D., W., ARS/SCA: The effect of Endophyte-Infected Tall Fescue consumption on epigenetic regulation of inflammation in horses., Sponsored by Agricultural Research Service Submitted: February 5, 2016. Funding Dates: August 1, 2014 - April 30, 2018. | Current Budget Amount: \$62,975.00

Prime Grant OSPA ID: 201602041500

Adams A., A., Horohov D., W., ARS/SCA: The effect of Endophyte-Infected Tall Fescue consumption on epigenetic regulation of inflammation in horses., Sponsored by Agricultural Research Service Submitted: September 21, 2013. Funding Dates: July 1, 2013 - April 30, 2018. | Current Budget Amount: \$83,310.00

Prime Grant OSPA ID: 201305081534

### **Non-Sponsored Projects**

#### Closed

Adams, A. A. (Principal), Effect of transport on immune function and EHV-1 reactivation in horses, Lincoln memorial University, (2016). Awarded: \$15000.

#### **Under Review**

Ruby, R. (Co-Investigator), Gaskill, C. L. (Principal), Adams, A. A. (Co-Investigator), Equine neuromuscular disorder associated with Asclepia tuberosa, Research Activity Award Application. Awarded: \$1855.

#### College

#### Closed

Gaskill, C. L. (Principal), Janes, J. G. (Co-Investigator), Adams, A. A. (Collaborator), Determination of the minimal toxic dosage of diphacinone in horses, Research Activity Award, (2016 - 2018). Awarded: \$1847.00.

Description: Research Activity Award to cover costs of horse per diem, supplies and testing for the study. My role is postmortem examination of the horses for evidence of coagulopathy.

### **On-going**

Romano, M. C., Ruby, R., Gaskill, C. L., Adams, A. A., Research Activity Award - Milkweed administration study, (October 2019 - Present). Awarded: \$1855.
 Description: Funding is being used for an administration study to try to determine whether butterfly milkweed is the cause of a seasonal neuromuscular disorder affecting horses in northern Kentucky and southern Ohio. Hay from a recent case will be fed to a UK research herd horse and the horse will be monitored.

### Department

#### Closed

Adams, A. (Co-Investigator), Fee for service research to investigate cytokine responses post vaccination in samples obtained from Boehringer Ingelheim Vetmedica, Boehringer Ingelheim Vetmedica, (2017). Awarded: \$8225. Description: fee for service work

### Not Funded

Adams, A. A., Investigating the prevalence and risk factors of insulin dysregulation (ID) in horses in Kentucky., GERF. Awarded: \$25000.

### **On-going**

- Adams, A. A., Sarcopenia: The anti-inflammatory effect of exercise in the geriatric horse, (2019). Awarded: \$10000.
- Adams, A. A. (Principal), Investigating seasonal influences on inflammatory responses to a metabolic challenge and the risk for development of laminitis in horses with insulin dysregulation, Gluck Equine Research Foundation, (2016 2017). Awarded: \$25000.

### Federal

### **On-going**

- Adams, A. A., Scope Project: ARS/SCA: THE EFFECT OF ENDOPHYTE-INFECTED TALL FESCUE CONSUMPTION ON EPIGENETIC..., USDA, ARS, Forage-Animal, (March 1, 2016 - April 30, 2018). Awarded: \$47975.
  - Description: Scope project under the prime project FAPRU SCA. Prime Project PI is Rick Bennett. Prime account value is \$2,751,873.00

#### Hatch

#### **On-going**

Adams, A. (Principal), Understanding seasonal influences on inflammation and insulin dysregulation using an oral sugar test in horses with endocrine disorders., Kentucky Agricultural Experiment Station, (2018 - 2021). Awarded: \$230446.

#### **Under Review**

Adams, A. A. (Principal), Understanding seasonal influences on inflammation and insulin dysregulation using an oral sugar test in horses with endocrine disorders. Awarded: \$114231.

#### Foundation

#### **Not Funded**

Adams, A. A., Ball, B. A., An evaluation of the effect of altrenogest on the immune system of the mare, American Quarter Horse Foundation. Awarded: \$106467.

Adams, A. A., Ball, B. (Principal), Adams, A. (Co-Principal), An evaluation of the effect of altrenogest on the immune system of the mare, Grayson Jockey Club. Awarded: \$106467.

#### **Under Review**

Adams, A. A., Investigations into the prevalence of Insulin Dysregulation (ID) and Pituitary Pars Intermedia Dysfunction (PPID) and effects of ID/PPID and medication management on reproductive function in Thoroughbred broodmares., EDRC. Awarded: \$125750.

#### Industrial/Trade

#### **Not Funded**

Adams, A. A. (Principal), Horohov, D. (Co-Investigator), Nielsen, M. (Co-Investigator), To determine the effects of Diamond V XPC supplementation on immune function in foals during weaning and to determine the effects of Diamond V XPC on immune function in vtiro, Diamond V. Awarded: \$88244.

#### **On-going**

- Adams, A. (Principal), The effects of PPID and Pergolide treatment on worm burden and response to anthelmintic treatment in horses, Boehringer Ingelheim Vetmedica, (2019 2020). Awarded: \$10836.
- Adams, A. A., BIVI STUDY No. 2017162 (Endocrine and Immune sample analysis), Boehringer Ingelheim Vetmedica, (2019 Present). Awarded: \$28530.
- Adams, A. A., Processing and RT-PCR analysis of tempus tubes collected from CA and TN studies, Boehringer Ingelheim Vetmedica, (2018 - 2019). Awarded: \$24000.
- Adams, A. A. (Principal), Gift Money to Support the Geriatric and Metabolic Horse Research Program, Mars Horsecare, (2016 - 2019). Awarded: \$285000. Description: Gift Money to support my research geriatric and metabolic horse program
- Adams, A. A., Mars processing and analysis of serum samples, (September 2019 Present). Awarded: \$22702.
- Adams, A. (Co-Investigator), Fee For Service Immune sample analysis, Boehringer Ingelheim Vetmedica, (2018 Present). Awarded: \$13340. Description: Fee for service work
- Adams, A. (Collaborator), Mars Horsecare Fee for Service work analyzing cytokines in samples obtained from samples collected with a collaborator at UGA, Mars Horsecare, (2017 Present). Awarded: \$5000.

- Adams, A. A. (Principal), Gift Money to Support of Geriatric Herd of Horses, Boehringer Ingelheim Vetmedica, (2016 - 2017). Awarded: \$30000. Description: Gift Money to Support of Geriatric Herd
- Adams, A. A. (Principal), A novel treatment (cabergoline) for horses with Pituitary Pars Intermedia Dysfunction, BET labs, (2016 - Present). Awarded: \$5000.

#### **Under Review**

- Adams, A. A., Proof-of-concept field study to evaluate ThyroL for the adjunctive treatment of insulin dysregulation (ID) in obese horses and ponies, LLoyd. Awarded: \$500000.
- Adams, A. A., To determine the effects of a Senior Diet vs. a Senior Diet supplemented with DV technology on metabolic function, inflammatory responses and changes in fecal microbiome in ID horses., Diamond V. Awarded: \$125845.
- Adams, A. A., To determine the effects of Inulinase on metabolic responses of ID vs. Non-ID horses., Biocat Labs. Awarded: \$15000.
- Adams, A. A., Study No 2018264 New glycemic challenge pellets in US insulin dysregulated (ID) horses, Boehringer Ingelheim Vetmedica Germany. Awarded: \$14000.
- Adams, A. A., To determine the effects of VENTIL-ATE (Mars Horsecare) supplementation on immune function in horses during transportation stress, To determine the effects of VENTIL-ATE (Mars Horsecare) supplementation on immune function in horses during transportation stress. Awarded: \$10000.
- Adams, A. A. (Principal), To determine the effects of an immune modulator (aie10) supplementation on immune function in horses during transportation, eanimalproducts. Awarded: \$23072.
- Adams, A. A. (Principal), The effect of total replacement with BIOPLEX minerals on immune responses to a vaccine challenge in horses, Alltech. Awarded: \$80141.
- Adams, A. A. (Principal), To determine the effects of Diamond V XPC Supplementation on immune function in senior horses, Diamond V. Awarded: \$113491.
- Adams, A. A., Effects of Dietary Industrial Hempseed products on equine health, Enhanced Pet Sciences. Awarded: \$456750.

- Adams, A. A. (Principal), Systemic metabolic effects of synthetic glucocorticoids in healthy horses after a single intrasynovial administration, Luitpold Pharmaceuticals. Awarded: \$88131.
- Adams, A. A. (Principal), Evaluating the immune response of geriatric horses to different monovalent vaccine formulations, Zoetis. Awarded: \$106889.

### Other

#### **On-going**

- Adams, A. A., Gift Money from Linda Mars to continue to support the geriatric and metabolic horse herd, Linda Mars, (2019 2031). Awarded: \$1500000.
   Description: \$150,000 gifted per year for 10 years
- Adams, A. (Principal), Gift Money from Lisa Lourie to support endocrine research, Lisa Lourie, (2018 - Present). Awarded: \$30000.

Description: \$30,000 per year for 5 years

# Other Government

#### Not Funded

Adams, A. A., Silence, M., Bailey, S., Laat, M. d., Steel, R., Durham, A., Argo, C., Menzies-Gow, N.,
 Adams, A., Harris, P., Reiche, D., Sonntag, J., Improving Diagnosis and Treatment of equine
 Pituitary Pars Intermedia Dysfunction, Australian Research Council. Awarded: \$3000000.
 Description: Multi-institute and University of Kentucky portion approx \$600,000

#### University

#### Not Funded

Adams, A. A., Supporting Ethnic Diversity for Women in Equine and Veterinary Science, UK Women and Philanthropy. Awarded: \$50000.

#### **On-going**

- Adams, A. A., Effect of metformin on the insulin responses to oral sugar in insulin dysregulated horses, LMU, (March 2021 March 2022). Awarded: \$15000.
- Adams, A. A., Identifying Possible Thresholds for Non-Structural Carbohydrates in the Insulin Dysregulated Horse, LMU, (March 2021 March 2022). Awarded: \$15000.
- Ball, B. (Principal), Adams, A. A. (Co-Principal), Effect of altrenogest on immune and reproductive function in the mare, Lincoln memorial University, (2017 2018).
- Adams, A. A. (Principal), Effect of endocrine disease on cytokine production in the geriatric horse, Lincoln memorial University, (2017 2018). Awarded: \$15000.

Gaskill, C. (Principal), Janes, J. (Co-Principal), Adams, A. (Collaborator), Determination of the minimal toxic dosage of diphacinone in horses., Research Activity Award, (2016 - 2017). Awarded: \$1847.00.

#### **Under Review**

Adams, A. A. (Principal), Sarcopenia: The anti-inflammatory effects of exercise in the geriatric horse, Lincoln memorial University. Awarded: \$15000.

### **Intellectual Property**

Adams, A. A., Lateral flow test to detect equine insulin in blood samples to aid in diagnosing and monitoring equine endocrine diseases, Patent/Copyright/ID Number: Case 2285

#### **Presentations Given**

#### **Invited Speaker**

- Adams A. A., (2021). Older Horses Equine Innovators Podcast-The Horse, Equine Innovators Podcast-The Horse, Virtual. Invited, International.
- Adams A. A., (2021). EMS and PPID USPC Finals KY Horse Park, USPC Finals KY Horse Park

, KY, United States. Invited, National.

- Adams A. A., (October 15, 2019). Updates on Endocrine Testing in horses Endocrine Symposium, University of Kentucky, KY, United States. Invited.
- Adams A. A., (October 10, 2019). Exploring factors that may influence insulin responses to the OST in ID horses Laminitis Research Symposium, New Bolton Penn State, PA, United States. Invited.
- Adams A., (October 15, 2018). Investigating the role of the gastrointestinal tract and pancreas in horses with insulin dysregulation (ID) GERC Board Meeting, GERC, Lexington, KY, United States. Accepted, Department.
- Adams A., (September 28, 2018). Aging, Obesity and Stress...Oh My! Rutgers University Seminar Series, Rutgers University, Lexington, NJ, United States. Invited, University.
- Adams A., (June 14, 2018). Seasonal Insulin Responses to the Oral Sugar Test American College of Veterinary Internal Mecidine, ACVIM, Seattle, WA. Invited, International.
- Adams A., (May 22, 2018). Caring for the Senior Horse: Not a One-Size-Fits-All Approach The Alltech One 18 Conference, Alltech, Lexington, KY. Invited, International.
- Adams A., (April 30, 2018). Immune Tolerance: Mechanims and Applications Vetoquinol National Sales Meeting, Vetoquinol, Lexington, KY.
- Adams A. A., (September 2017). Immunology of Aging Mid-America Veterinary Conference, Kentucky Veterinary Medical Assocation, Louisville, KY, United States. Invited, Regional.
- Adams A. A., (September 2017). PPID and EMS Mid-America Veterinary Conference, Kentucky Veterinary Medical Association, Louisville, KY, United States. Invited, Regional.
- Adams A. A., Siard M. H., Reedy S. E., Barker D., Elzinga S., Sanz M. G., Cesar F., Lawson C., Tucker C., Mulholland M., DW H., Urschel K., Ireland J. L., (January 2017). Evaluating seasonal influences on

hormone responses to a diagnostic test (TRH) advocated for early diagnosis of PPID Dorothy Havemeyer International Equine Endocrine Summit, Dorothy Havemeyer, Coral Gables, FL, United States. Invited, International.

Adams A. A., (July 2016). Nutritional Immunology for the geriatric horse ADSA/ASAS JAM Meeting, Salt Lake City, UT, United States. Invited, International.

### **Podium Session**

- Macon E., Harris P., Adams A. A., (June 2021). Variation in Individual Oral Sugar Test Responses. Equine Science Society, ESS, Virtual, United States. Accepted, International.
- Macon E., Partridge E., Harris P., Adams A. A., (2020). Insulin Dysregulated Horses: Responses to Varying Oral Sugar and Fasting to the Oral Sugar Test Equine Endocrinology Symposium, Equine Endocrinology Symposium, Germany. Accepted, International.
- Macon E., Harris P., Adams A. A., (2020). Insulinemic Responses to Non-Structural Carbohydrates and Crude Protein in Varying Concentrates in Healthy and Insulin Dysregulated Horses Equine Endocrinology Symposium, Equine Endocrinology Symposium, Germany. Accepted, International.
- Steuer A. E., Barker V., Scoggin K., Stewart J., Page A. E., Adams A. A., Loynachan A. T., Nielsen M. K., (June 21, 2020). The local and systemic inflammatory response to anthelmintic therapy: Does killing encysted cyathostomins increase inflammation? American Association of Veterinary Parasitologists, 65th Annual Meeting, American Association of Veterinary Parasitologists, Virtual Conference, Other / Multiple Countries. Accepted, International.
- Adams A. A., Macon E. L., Partridge E., Harris P. A., (December 2019). Insulin Dysregulated Horses: Responses to Varying Oral Sugar and Fasting to the Oral Sugar Test Havemeyer Endocrine Symposium, Havemeyer Endocrine Symposium, Germany. Accepted.
- Macon E. L., Harris P. A., Adams A. A., (December 2019). Insulinemic Responses to Non-Structural Carbohydrates and Crude Protein in Varying Concentrates in Healthy & Insulin Dysregulated Horses Havemeyer Endocrine Symposium, Havemeyer Endocrine Symposium, Germany. Accepted, International.
- Steuer A. E., Steward J. C., Barker V. D., Adams A. A., Nielsen M. K., (2019). It's All About the Mucus? Evaluation of the Immune Response to Larvicidal Treatment of Equine Cyathostomin Infection WAAVP, WAAVP. Accepted.
- Romano M., Francis K., Janes J. G., Adams A. A., Robert P. H., Michael F. S., Gaskill C. L., (October 2019). Determining approximate minimum toxic dose of diphacinone in horses, and corresponding serum, blood and liver diphacinone concentrations 62nd AAVLD/123rd USAHA Annual Meeting, American Association of Veterinary Laboratory Diagnosticians, Providence, RI. Accepted, National.
- Miller A. B., Loynachan AT, Barker V. D., Bush H. M., Grubbs S. T., Adams A. A., (September 2019). Pituitary Pars Intermedia Dysfunction (PPID) and treatment with Prascend<sup>®</sup> (pergolide tablets) on localized immune function within the lungs of horses. Veterinary Comparative Respiratory Society Symposium, Veterinary Comparative Respiratory Society Symposium, France. Accepted, International.
- Fedorka C. E., Ball B. A., Scoggin K. E., Loux S. C., Troedsson M. H.T., Adams A. A., (August 2019). Feto-meternal immune response to ascending placentitis Society for Theriogenology Annual meeting, SFT/ACT, Savannah, GA, United States. Accepted, National.
- Steuer A. E., Stewart J. C., Barker V., Adams A. A., Nielsen M. K., (July 10, 2019). It's all About the Mucus? Evaluation of the Immune Response to Larvicidal Treatment of Equine Cyathostomin Infection 27th Conference of the World Association for the Advancements of Veterinary Parasitology, World Association for the Advancements of Veterinary Parasitology, Madison, WI, United States. Accepted, International.

- Miller A. B., Bush H. M., Barker V. D., Grubbs S. T., Adams A. A., (June 2019). Effects of Pituitary Pars Intermedia Dysfunction and Prascend<sup>®</sup> Treatment on Endocrine and Immune Function American College of Veterinary Internal Medicine, American College of Veterinary Internal Medicine, Phoenix, AZ, United States. Accepted, National.
- Macon E. L., Harris P. A., Herbst A., Adams A. A., (June 2019). Effect on Insulin Response to Varying Doses of Corn Syrup to the Oral Sugar Test (OST) Equine Science Society, Equine Science Society, Ashville, NC, United States. Accepted.
- Macon E. L., Harris P. A., Barker V. D., Elzinga S., Adams A. A., (June 2019). Insulin Dysregulated & Healthy Horses' Seasonal Insulin Responses to the Oral Sugar Test Equine Science Society, Equine Science Society, Asheville, NC, United States.
- Herbst A., Cantu C., Burn C., Barker V. D., Adams A. A., (June 2019). Pilot study: Exploring the relationship between inflamm-aging and muscle mass in senior horses Equine Science Society, Equine Science Society, Asheville, NC, United States. Accepted.
- Macon E., Harris P., Barker D., Elzinga S., Miller A., Siard M., Adams A., (December 2018). Effects of season on morphometric measurements and insulin responses to the oral sugar test (OST) in control vs insulin dysregulated (ID) horses. American Association of Equine Practitioners, AAEP, CA, United States. Accepted, International.
- Macon E. L., Harris P. A., Barker V. D., Elzinga S., A Miller M. S., Adams A. A., (December 2018). Effects of season on morphometric measurements and insulin responses to the oral sugar test in control vs insulin dysregulated horses American Association of Equine Practitioners, American Association of Equine Practitioners, San Francisco, CA, United States. Accepted, International.
- Fedorka C. E., Ball B., Lu K., Hanneman J., Adams A., (2018). Alteration of the mare's immune system by the synthetic progestin, altrenogest. International Symposium on Equine Reproduction, ICEEP, Cambridge, England, Other / Multiple Countries. Accepted, International.
- Jia Y., Adams A. A., Burris W. R., Bridges P. J., Matthews J. C., (March 2018). The Form of Selenium in Free-Choice Vitamin-Mineral Mixes Affects the Percentage of Circulating Neutrophils and Lymphocytes in Beef Calves Subjected to Combined Weaning and Shipping Events. 2018 Southern Section Meeting of American Society of Animal Science, American Society of Animal Science, TX. Accepted, Regional.
- Haffner J., Grubbs S., Carlton J., Reedy S., Adams A., (2017). Does Vaccinating Mares Prior to Parturition Increase Colostral Antibody Transfer to Foals? American College of Veterinary Internal Mecidine, ACVIM, National Harbor, MD, United States. Accepted, International.
- Jia Y., Adams A. A., Burris W. R., Bridges P. J., Matthews J. C., (2017). The Form of Selenium in Free-choice Vitamin-mineral Mixes Affects the Percentage of Circulating Neutrophil and Lymphocyte in Beef Calves Subjected to Combined Weaning and Shipping Events. ASAS Southern Meeting, Fort Worth, TX, United States. Accepted, International.
- Miller A., Barker V. D., AA. A., (October 24, 2017). Characterizing age-related changes in the innate immune response of the horse. Infectious Disease Research Day, University of Kentucky, Lexington, KY. Accepted, University.
- Hanneman J. M., Elzinga S. E., Siard M. H., Barker V. D., Adams A. A., (May 31, 2017). Effects of endophyte-infected fescue supplementation on hormonal and immune responses in the old horse.
   Equine Science Society, Minneapolis, MN, United States. Accepted, International.
- Campana-Emard A., Barker V., Schindler S., Reedy S., Adams A., (May 31, 2017). The effects of transport stress on immune function in senior horses Equine Science Society, Minneapolis, MN, United States. Accepted, International.
- Altman A. W., Adams A. A., McLeod K. R., Vanzant. E. S., (February 2017). Immunomodulation in heifers fed endophyte-infected tall fescue seed. ASAS Midwest Section Annual Meeting, Omaha, NE, United States. Accepted, International.

- Adams A., Reedy S. E., Siard M. H., Elzinga S., Chambers T. M., Grubbs S. T., (2016). Influenza-Specific Immune Responses to a Combination Vaccine in Naïve Ponies. American College of Veterinary Internal Medicine, Wilmore, CO, United States. Accepted, International.
- Adams A. A., Betancourt A., Barker D., Siard M. H., Elzinga S., Reedy S. E., Grubbs S. T., (June 2016). WNV-specific Immune Responses to a Combination Vaccine in Naive Ponies American College of Veterinary Internal Medicine, Denver, CO, United States. Accepted.

### **Poster Session**

- Herbst A., Reedy S., Page A., Adams A. A., (December 2021). Pro-inflammatory cytokine responses to bacterial antigen LPS differ between young adult and old horses *in vitro* Conference for Workers in Animal Disease, CRWAD, IL, United States. Accepted, International.
- Turner S., Barker D., Adams A. A., (December 2019). Effects of Industrial Hemp cannabidiol on pro-inflammatory cytokine production of horses in vitro. Conference for Workers in Animal Disease, Conference for Workers in Animal Disease, Chicago, IL, United States. Accepted.
- Zak A., Siwinska N., Elzinga S., Barker V. D., Stefaniak T., Artur N., Adams A. A., (October 2019). EFFECTS OF ADVANCED AGE AND PITUITARY PARS INTERMEDIA DYSFUNCTION ON COMPONENTS OF THE ACUTE PHASE REACTION IN HORSES 16th World Equine Veterinary Association Congress, 16th World Equine Veterinary Association Congress, Italy. International.
- Zak A., Siwinska N., Stygar D., Romuk E., Chelmecka E., Bazanow B., Niedzwiedz A., Adams A. A., (October 2019). OXIDATIVE STRESS MARKERS IN SERA OF HORSES WITH EQUINE METABOLIC SYNDROME 16th World Equine Veterinary Association Congress, 16th World Equine Veterinary Association Congress, Italy. Accepted, International.
- Miller A. B., Loynachan A. T., Adams A. A., (2018). Evaluation of myeloperoxidase in the plasma and bronchoalveolar lavage fluid (BALF) of horses with pituitary pars intermedia dysfunction (PPID). 36th Annual VCRS Symposium, Veterinary Comparative Respiratory Society Symposium, Auburn, AL, United States. Accepted, National.
- Zak A., Elzinga S., Barker D., Swinska N., Niedzwiedz A., Adams A., (2018). The influence of age and pituitary pars intermedia dysfunction on the inflammatory cytokines profile and concentration of c-reactive protein in horses. Advances in Equine Internal Medicine, Wroclaw, Czerwca, Wroclaw, Poland. Accepted, International.
- Miller A., Barker D., Adams A., (October 2018). Effect of PPID on immune function in horses Infectious Disease Research Day, University of Kentucky, KY, United States. University.
- Loos C., Dorsch S., Elzinga S., Barnes T., Adams A. A., Urschel K. L., (July 11, 2018). A high protein meal affects plasma insulin concentrations and amino acid metabolism in horses with equine metabolic syndrome. Abstract #PSXVI-5, 2018. 2018 ASAS-CSAS Annual Meeting, American Society of Animal Science and Canadian Society of Animal Science, Vancouver, Canada. Accepted, International.
- Hanneman J., Elzinga S. E., Siard M. H., Barker V. D., Adams. A. A., (May 2017). Immune and hormonal responses to endophyte infected fescue consumption in the geriatric horse Animal and Food Sciences Graduate Association 7th Annual Poster Symposium, Lexington, KY, United States. Accepted, University.
- Loos C., Dorsch S. C., Brewster-Barnes T., Adams A. A., Urschel. K. L., (May 2017). Glucose and insulin dynamics after consumption of a high protein meal in horses with Equine Metabolic Syndrome. Animal and Food Sciences Graduate Association 7th Annual Poster Symposium,, Lexington, KY, United States. Accepted, University.
- Elzinga S., Reedy S., Barker D., Chambers T., Adams A. A., (2016). Do Horses with Equine Metabolic Syndrome have Reduced Immune Responses to Vaccination? American College of Veterinary Internal Medicine, Denver, CO, United States. Accepted, International.

Siard M., Barker V. D., Reedy S. E., Adams A. A., (2016). Immunological Comparisons of Aged Horses with vs. without Pituitary Pars Intermedia Dysfunction. American College of Veterinary Internal Medicine, Denver, CO, United States. Accepted, International.

# Extension

#### **Extension Publications & Media**

\* = Senior Author ~ = Corresponding Author + = Grad/Prof Student # = Post Doc ^ = Undergraduate

### Published

Peer-Reviewed

#### **Extension Publication- Numbered, Original Content**

Adams, A. A., Camargo, F. C. (2018). ID-252- Equine Cushing's Disease or PPID Lexington, KY, University of Kentucky Agricultural Communications Service, 3.

# Teaching

#### Teaching

Prefix Number - Section	Credit Hours	# Enrolled	Code Term Year
VS 597 - 001	1.00000 - 3.00000	2	10 Fall 2021-2022
VS 767 - 019	2.00000 - 2.00000	3	10 Fall 2021-2022
VS 791 - 019	1.00000 - 9.00000	1	10 Fall 2021-2022
VS 767 - 018	2.00000 - 2.00000	3	30 Spring 2020-2021
VS 767 - 019	2.00000 - 2.00000	2	10 Fall 2020-2021
VS 395 - 003	1.00000 - 4.00000	3	30 Spring 2019-2020
VS 767 - 018	2.00000 - 2.00000	2	30 Spring 2019-2020
VS 791 - 018	1.00000 - 9.00000	1	30 Spring 2019-2020
VS 597 - 001	1.00000 - 3.00000	4	10 Fall 2019-2020
VS 767 - 019	2.00000 - 2.00000	2	10 Fall 2019-2020
VS 791 - 019	1.00000 - 9.00000	1	10 Fall 2019-2020
VS 767 - 018	2.00000 - 2.00000	1	30 Spring 2018-2019
VS 791 - 018	1.00000 - 9.00000	3	30 Spring 2018-2019
VS 767 - 019	2.00000 - 2.00000	1	10 Fall 2018-2019
VS 791 - 019	1.00000 - 9.00000	3	10 Fall 2018-2019
VS 395 - 003	1.00000 - 4.00000	1	30 Spring 2017-2018

VS 767 - 018	2.00000 - 2.00000	1	30 Spring 2017-2018
VS 791 - 018	1.00000 - 9.00000	3	30 Spring 2017-2018
VS 791 - 019	1.00000 - 9.00000	3	10 Fall 2017-2018
VS 791 - 021	1.00000 - 9.00000	1	52 2nd summer
			2016-2017
VS 791 - 011	1.00000 - 9.00000	1	51 1st summer
			2016-2017
VS 395 - 003	1.00000 - 4.00000	1	30 Spring 2016-2017
VS 767 - 018	2.00000 - 2.00000	2	30 Spring 2016-2017
VS 791 - 018	1.00000 - 9.00000	2	30 Spring 2016-2017
VS 767 - 022	2.00000 - 2.00000	2	10 Fall 2016-2017
VS 791 - 022	1.00000 - 9.00000	2	10 Fall 2016-2017
VS 767 - 022	2.00000 - 2.00000	2	30 Spring 2015-2016

Note: With regards to 2020 TCEs please consider the following from page 121 of the UK Playbook for Fall 2020, "It is essential that performance evaluation take into account the extenuating circumstances brought about by the disruption for faculty in all title series and the extraordinary work accomplished by faculty in response to the disruption. Academic leaders shall reiterate that TCEs should be but one indicator of effective teaching in both periodic merit reviews and tenure/promotion decisions. Evaluation of teaching must go beyond student evaluations alone."

### **Theses and Dissertations**

### **Dissertation Committee Chair**

- Erica Jacquay, Veterinary Science, "Effects of Transport Stress on Immune Function in horses," Status: In-Process, Expected Completion Date: 2023. (2020 - Present).
- Shelley Turner, "Effects of CBD derived from Industrial Hemp on Immune Function in Horses," Expected Completion Date: 2022. (August 2018 - Present).
- Erica Macon, "Modulation of insulin dysregulation associated with PPID and EMS," Expected Completion Date: 2021. (May 2017 November 22, 2021).
- Alisa Herbst, Veterinary Science with an emphasis in Immunology, "Inflamm-aging and Sarcopenia: Modulation by Nutrition and Exercise," Expected Completion Date: 2021. (August 2017 - November 16, 2021).
- Ashton Miller, Veterinary Science emphasis in Immunology, "Pituitary Pars Intermedia Dysfunction," Status: Degree Awarded. (August 2014 July 11, 2019).
- Sarah Elzinga, Veterinary Science with emphasis in Immunology, "INFLAMMATION AND INSULIN DYSREGULATION IN THE HORSE," Status: Degree Awarded. (August 2013 June 2017).
- Melissa Siard, Veterinary Science with emphasis in Immunology, "Lymphocyte-mediated Inflamm-aging in the Horse," Status: Degree Awarded. (August 2012 - May 2017).

#### **Dissertation Committee Member**

- Elizabeth Morris, Animal Science, "Effects of CBD on health parameters in dogs," Status: In-Process, Expected Completion Date: 2021. (March 2018 - 2021).
- Agnieszka Zak, Veterinary Science, "Acute phase proteins: EMS and PPID," Status: Degree Awarded, Expected Completion Date: 2019. (2016 2020).

Ashley Steuer, Parasitology. (2016 - 2020).

Jasmin Bagge, "Effect of age on stem cell function." (2016 - 2019).

Alex Altman, Bovine Science, Status: Degree Awarded. (2015 - 2018).

- Caroline Loos, Equine Science, "Effects of protein on metabolic responses in the EMS horse," Status: Degree Awarded, Expected Completion Date: 2018. (2015 - 2018).
- Matthew Borchers, Dairy Science, Status: Degree Awarded, Expected Completion Date: 2018. (2015 July 2018).

#### **Master's Thesis Committee Chair**

Jessica Hanneman, Veterinary Science with emphasis in Immunology, "Effect of dopamine agonist on immune and metabolic function in the horse," Status: Degree Awarded, Expected Completion Date: 2018. (August 2016 - July 24, 2018).

### **Master's Thesis Committee Member**

Sophie Dorsch, Equine Nutrition, Status: Degree Awarded. (2016 - November 2018).

Samantha Strouss, Epidemology, "Serum Amyloid A," Status: Degree Awarded, Expected Completion Date: July 25, 2018. (2017 - July 25, 2018).

#### **Outside examiner**

Elizabeth Eckelcamp, Bovine Science, Status: Degree Awarded. (2017 - 2018).

Yang Jia, Bovine Science, Status: Degree Awarded, I have provided input into ongoing studies for this student as well as reviewing data and abstracts for presentations. (2016 - 2018). **Directed Student Learning (excluding theses, dissertations)** 

Amelia Floyd. Directed Individual/Independent Study. *Effect of Varying Non-Structural Carbohydrates on Insulinemic Responses in the Healthy and Insulin Dysregulated Horses*. (2021).

Ashley Caldwell. Research Intern Mentor. . (2021).
 Description: Ashley Caldwell, LMU Research Day, 4<sup>th</sup> place presentation, 2021
 Ashley Caldwell. Research Intern Mentor. *Effect of NSC on insulin responses in ID horses*. (2021).
 Description: LMU Summer Vet Student

Rachel Miller. Research Intern Mentor. . (2021).

Description: Rachel Miller, LMU Research Day, 1<sup>st</sup> place poster, 2021

- Rachel Miller. Research Intern Mentor. *Effect of metformin on insulin responses in ID horses*. (2021).
  - Description: LMU Research Summer Vet student
- Alisa Herbst. Research Supervision. . (2021).
  - Description: Alisa Herbst, Conference of Research Workers in Animal Disease/America Association of Vet Immunologist student poster first place award (2021)
- Alisa Herbst. Research Supervision. . (2020).
  - Description: Alisa Herbst, Richards Graduate Student Research Activity Award + Department of Veterinary Science Match Funding (2020) \$1,500
- Erica Macon. Research Supervision. . (2020).
- Description: Erica Macon, Graduate Student Congress Research Activity Award (2020) \$500 Erica Macon. Research Supervision. . (2020).
  - Description: Erica Macon, Richards Graduate Student Research Activity Award + Department of Veterinary Science Match Funding (2020) \$1,500
- Olga Witkowska. Directed Individual/Independent Study. . Completed (2019 2020). Description: Visiting Grad Student from Poland, needed independent research project in USA
- Mackenzie Johnson. Internship Advisor. Sacropenia in senior horses. In-Process (2019 2020).
- Becca Leigh. Research Supervision. . In-Process (2019 2020).
  - Description: Gaining research experience
- Emma Partridge. Research Supervision. . In-Process (2019 2020).
- Description: Gaining research experience, interested in grad school
- Isabella Pisani. Research Supervision. . In-Process (2019 2020).
  - Description: Needs research experience, interested in grad school
- Jason Huber. Research Supervision. . In-Process (2019 2020).
  - Description: Pre-vet, needs horse experience
- Carleigh Fedorka. Postdoctoral Supervision. Reproductive Immunology. (2017 2020).
- Hayley Gammons. Directed Individual/Independent Study. *Sacropenia in senior horses*. Completed (May 2019 2019).
  - Description: LMU Summer Research
- Brenna Wallin. Research Intern Mentor. . (2018 2019).
  - Description: Layfette High School Research Intern
- Caitlynn Gunther. Research Intern Mentor. . (2018 2019).
  - Description: University of Kentucky Intern
- Cosby Green. Research Intern Mentor. . (2018 2019).
  - Description: Sayre High School Research Intern
- Damon Parmeter. Research Supervision. . In-Process (2018 2019).
- Description: Pre-vet needs experience working with horses
- Eliza Green. Research Intern Mentor. . (2017 2019).
  - Description: University of Kentucky Research Intern

Kai Davis. Research Intern Mentor. *Effects of Vitamin C , E and Zinc on lymphocyte proliferation and cytokine production*. (2017 - 2019).

Description: UK ABT Intern Mentor for class credit

Bertsie Cantu. Research Intern Mentor. . (2018).

Description: LMU Vet Student Summer Research Pilot study: The relationship of exercise training, inflamm-aging and muscle mass in senior horses

Kateylyn Jaqueway. Research Intern Mentor. . (2018).

Description: LMU Vet Student Summer Intern Effect of varying nutrient content on insulin responses in healthy and insulin dysregulated horses

Sarah Nath. Research Intern Mentor. . (2018).

Description: MSU Vet School Internship Director for Summer 2018

Katey Poe. Research Intern Mentor. *Effects of Yucca on immune function*. (2017 - 2018). Description: Equine Science Internship Mentor

Rachel Bailey. Research Intern Mentor. *Effect of probiotics on immune function in the horse*. (2017 - 2018).

Description: Asbury Internship Mentor for Class credit and grade

Jessica Hanneman. Directed Individual/Independent Study. . (2017).

Description: University of Kentucky 3M Thesis finalist

- Emma Brennan. Research Intern Mentor. *Effects of transport stress on immune function*. (2017). Description: UK ABT Intern for class credit
- Kaitlin Walton. Research Intern Mentor. *Effect of endocrine disease (PPID) on immune function*. (2017).

Description: LMU vet student internship

Staci Sherman. Research Intern Mentor. *Effects of progestin on immune function in the mare*. (2017).

Description: LMU Vet Student Intern

Alessandra Campana. Research Intern Mentor. *Effects of transport stress on immune function*. (2016 - 2017).

**Description: Equine Science Intern** 

Alex Bertke. Research Intern Mentor. *Effects of Curcumin supplementation on immune function in the horse*. (2016 - 2017).

Description: Equine Science Intern and student worker

Ashton Miller. Directed Individual/Independent Study. . (October 2017).

Description: Third Annual Infectious Diseases Research Day, University of Kentucky, Lexington, KY. October 2017 - Second place tie for 3-minute thesis presentation for the below research. Miller AB, Barker VD, Adams AA. 2017. Characterizing age-related changes in the innate immune response of the horse.

Alexandria LoPrinzi. Research Intern Mentor. *EMS-Inflammation Study*. (2016). Description: Asbury University Research Intern

- Mary Eastham. Research Intern Mentor. *Effects of travel stress on immune function*. (2016). Description: Asbury Intern
- Nicole Welch. Research Intern Mentor. *Effects of EI fescue seed consumption on immune function*. (2016).

Description: Equine Science Intern and student worker

Patricia Ochonski. Research Intern Mentor. *Leaky Gut and Immune Function in the horse*. (2016). Description: Visiting MS Student mentor for research during summer

Sarah Sivinski. Research Intern Mentor. *Relationship between inflammation and joint breakdown in the old horse*. (2016).

Description: Equine Science Intern

Suzanne Schindler. Research Intern Mentor. *Effects of transportation stress on immune function in the horse*. (2016).

Description: LMU Summer Vet Student Intern

### **Other Credit and Non-Credit Instructional Activities**

#### (2021)

Description: Mentored a new Faculty member in CAFE

### Guest Lecture

- LMU Veterinary Immunology and Cellular Pathobiology, Participants: Professional Student, 100, Description: I have given several lectures in this course "Overview of Equine Vaccines and Ongoing Studies", "Weaning Stress and Immunomodulators", "Geriatric Horses-Let's talk about vaccination, deworming and inflammation", "Cytokines" and "Immunoassays"
- ABT 101, (2019)

Description: Immunology Overview

(2018)

Description: Guest speaker

Introduction to Biological Research, Participants: Undergraduate Students, 20, (2018) Description: "Overview of Equine Immunology and Studies"

Diseases in Dairy Cattle, (2017)

Description: "Immunology 101"

Equine Health and Disease, Participants: Undergraduate Students, 60, (2017)

Description: I have given "Immunology 101" lectures in the Spring and Fall semesters of this course

Equine Infectious Disease in the Genomics Era, Participants: Graduate Students, 10, (2017) Description: I have given Spring an Fall Lectures "Overview of Immunology" in this course

#### Workshop

Participants: Professionals, 120, (September 28, 2017)

Description: A mini symposium dedicated to the senior horse. I organized the event and invited all of the speakers. 1:15 - 1:45, Immunosenescence and How it Affects the Care of the Old Horse Amanda Adams, PhD UK Gluck Equine Research Center 1:45 - 2:15, Constructing a Wellness Program for the Aging Performance Horse Marian Little, DVM Luitpold Pharmaceuticals 2:15 - 2:45, Endocrine Diseases of the Older Horse and How to Diagnose Them Lisa Tadros, DVM, PhD, Dipl. ACVIM Michigan State University 2:45 - 3:15, BREAK 3:15 - 3:45, Dental Care of the Geriatric Horse Jack Easley, DVM, MS, ABVP, Dipl. AVDC (Eq) Easley Equine Dentistry 3:45 - 4:15, Feeding the Old Grey Mare Sarah Ralston, VMD, PhD, Dipl. ACVN Rutgers, The State University of New Jersey 4:15 - 4:45, Feeding the Older Horse with PPID and/or Insulin Resistance Kristine Urschel, PhD

University of Kentucky 4:45 - 5:15, Podiatry Care of Older Horses Scott Fleming, DVM, CF Rood and Riddle Equine Hospital

# Service

# **Department Service**

Gluck Social Media Committee, (2018 - Present). Committee Member

Advisory and Planning Committee, (2021 - Present).

Animal Resource Committee, (2016 - Present).

Promotion and Tenure Committee, (2019 - 2020).

Departmental Implementation Task Committee, (2016 - 2020).

Equine Extension Veterinarian Position Search Committee, (2017 - 2018).

Tenure and Promotion Review Committee, (2015 - 2017).

Gluck Strategic Advisory Planning Committee, (2014 - 2017).

Emerging and Re-emerging Infectious Disease Position Search Committee, (2016).

# **College Service**

Equine Programs Research Planning Subcommittee, (2018 - Present).

Equine Programs Showcase/Short Course Planning Committee, (2018 - Present).

Ag Equine Summit Committee & Subcommittee, (2016 - 2017). Committee Member

Equine Nutrition Workshop Committee, (2015 - Present).

# **Professional Service**

Gluck Center, Invited lecture "Effects of aging, obesity and stress on immune function in horses", (2017).

### **Committee Member**

Grayson-Jockey Club Research Foundation, Grant Review Committee, (2016 - 2020).

LMU Research Committee, Review Internal LMU Research Grants, (2016 - 2020).

UK Equine Nutrition Short Course, Helped organize the event, (2016).

### **Invited Lecture**

TheHorseLive.Com, Invited to give a 1 hour lecture on Equine Metabolic Syndrome, (April 13, 2017).

### **Reviewer**, Journal

Comparative Exercise Physiology, (2016 - Present).

Equine Veterinary Journal, Manuscript Reviewer Service, (2016 - Present).

Journal of Equine Veterinary Science, manuscript reviewer service, (2016 - Present).

Veterinary Immunology and Immunopathology, (2016 - Present).

#### Task Force Member

Equine Science Society Bioscience Judge, Biosciences oral presentation judge, (2017 - Present).

Equine Science Society Biosciences Moderator, Equine Science Society Biosciences Moderator, (2021).

Equine Science Society, Moderator, (2017).

UK Annual Animal Science Symposium, poster judge, (2017).

# Consulting

Business and Industry, Veterinarians and Horse owners. (2016 - 2018).

Description: Over the past two years I correspond on a monthly, at times on a weekly basis, to answer questions via phone and/or email from some of our industry partners in research as well as the public including horse owners and veterinarians about equine endocrine diseases (EMS and PPID), equine vaccinology/immunology, nutrition and care of older horses.

# **Media Contributions**

### Magazine

- "The Horse Magazine. "Retirement Planning: Optimizing Your Horse's Post-Career Care"." (July 11, 2019).
- "The Horse Magazine. "Can horses with PPID be turned out on pasture? (This seems timely as we're approaching spring laminitis season)"." (June 2019).

"Paulick Report, Maintaining The Health of Senior Equines Through Nutrition." (November 16, 2018). United States.

"Practical Horseman Magazine, Coping with EMS." (September 18, 2018). United States.

"The Horse Magazine, What's new with weaning horses?" (September 14, 2018). Lexington.

- "The Horse Magazine, Does Equine PPID Affect Immune Responses to vaccination?" (May 25, 2018). United States.
- "The Horse Magazine, Equine Immunity From Birth to Old Age." (April 27, 2018). United States.
- "The Horse Magazine, The Probiotic and Prebiotic Puzzle, A.A.Adams." (August 28, 2017). The Probiotic and Prebiotic Puzzle, A.A.Adams. United States.
- "The Horse Magazine, How Does Transport Impact Senior Horse Immune Function, A.A. Adams?" (July 25, 2017). How Does Transport Impact Senior Horse Immune Function, A.A. Adams?, United States.
- "The Horse Magazine, Weaning Ways, A.A.Adams." (July 16, 2017). Weaning Ways, A.A.Adams. United States.
- "The Horse Magazine, Does Equine Metabolic Syndrome Affect Gut Microbes? A.A.Adams." (May 23, 2017). Does Equine Metabolic Syndrome Affect Gut Microbes? A.A.Adams.
- "The Horse Magazine, Does Equine PPID Affect Immune Responses to Vaccination? A.A.Adams." (May 19, 2017). Does Equine PPID Affect Immune Responses to Vaccination? A.A.Adams.
- "TheHorse Magazine, Managing and Caring for the EMS horse, A.A.Adams." (April 13, 2017). Managing and Caring for the EMS Horse. Lexington.

## Radio

- "Alltech One 18 Conference Podcast, A.A.Adams Speaker." (August 10, 2018). Age and Grace: caring for senior horses. Lexington.
- "The Horse Magazine Podcast, Non-Drug Treatments for Equine Metabolic Syndrome." (March 20, 2018). United States.
- "The Horse Magazine Podcast, What to do if your horse gains weight, A.A.Adams." (March 19, 2018). Lexington.

- "The Horse Magazine Podcast, Is EMS the same as IR in Horses? A.A.Adams." (March 17, 2018). Lexington.
- "The Horse Magainze Podcast, Equine Metabolic Syndrome: Is there a Genetic Link." (April 26, 2017). Lexington.
- "The Horse Magazine Podcast, What is Equine Metabolic Syndrome? A.A.Adams." (April 25, 2017). Lexington.

#### τv

"Gluck's 30th Year Anniversary Video." (2017). Interview for the video. United States.

# **Professional Development**

# **Professional Memberships**

American Association of Equine Practitioners. National. (2016 - 2019).

American Association of Veterinary Immuologist. National. (2016 - 2019).

Conference for Research Workers in Animal Disease. National. (2016 - 2019).

Equine Science Society. International. (2016 - 2019).

#### **Development Activities Attended**

#### **Conference Attendance**

Equestrian Businesswomen. (January 2019). FL.

# Workshop

DEA Researcher Regulations Workshop. (April 2019). University of Kentucky. Lexington.

Promotion and Tenure Workshop. (February 2018). University of Kentucky. Lexingtohn.

Grant Writing Workshop. (March 16, 2017 - March 17, 2017). University of KY and University of TN Knoxville. Knoxville, TN, United States.

Chellegren student mentor luncheon. (March 2018). University of Kentucky.

# **Awards and Honors**

- *Wethington Research Excellence Award*, University of Kentucky. Wethington Research Excellence Award. (2020 2021).
- *Wethington Research Excellence Award*, University of Kentucky. Wethington Research Excellence Award. (June 2018 July 2019).
- *Faculty Mentor of the Week*, University of Kentucky. Recognition Award. (September 17, 2018 September 21, 2018).
- *Wethington Research Excellence Award*, University of Kentucky. Wethington Research Excellence Award. (July 1, 2017 June 30, 2018).
- Wethington Research Excellence Award, University of Kentucky. Scholarship/Research/Creative, Wethington Research Excellence Award, University. (July 1, 2016 June 30, 2017).

# **Dr. Ernest Bailey**

College of Agriculture, Food and Environment Department of Veterinary Science

# Education

- PHD, University Of California Davis, 1980. Major: Genetics
- MS, University Of California Davis, 1975. Major: Comparative Pathology
- BS, University Of California Davis, 1973. Major: Genetics

# **Research and Scholarship**

## **Intellectual Contributions**

\* = Senior Author ~ = Corresponding Author + = Grad/Prof Student # = Post Doc ^ = Undergraduate WOS = Web of Science JIF = Journal Impact Factor TC = Journal Total Cites SNIP = Source Normalize Impact per Paper SJR = Scimago Journal Rank

#### Published

#### Book, Scholarly-Revised

\* Bailey, E. F., Brooks, S. (2020). Horse Genetics Oxford, Oxfordshire, *CABI*(3), 227. Author Role:Bailey: wrote

#### **Invited Editorial**

\* Bailey, E. F., Finno, C. (2019). Translation and application of equine genomics: The Havemeyer principles, *Equine Veterinary Journal*, 51(2), 273. doi: 10.1111/evj.13051

#### Journal Article, Academic Journal

- Kingsley, N. B., Hamilton, N. A., Lindgren, G., Orlando, L., Bailey, E. F., Brooks, S., McCue, M., Kalbfleisch, T. S., MacLeod, J. N., Petersen, J. L., Finno, C. J., Bellone, R. R. (2021).
  "Adopt-a-Tissue" Initiative Advances Efforts to Identify Tissue-Specific Histone Marks in the Mare., *Frontiers in genetics*, 12, 649959. doi: 10.3389/fgene.2021.649959
- Graves, K. T., Eberth, J. E., \* Bailey, E. F. (2020). Heterozygotes for ACAN dwarfism alleles in horses have reduced stature, *Animal Genetics*, 51(3), 420-422. doi: 10.1111/age.12921 Author Role:Graves: Data collection and written contribution.
- Dunuwille, W. M.B., YousefiMashouf, N., Balasuriya, U. B.R., Pusterla, N., \* Bailey, E. F. (2020). Genome-wide association study for host genetic factors associated with equine herpesvirus type-1 induced myeloencephalopathy, *Equine Veterinary Journal*. doi: 10.1111/evj.13261

- Dini, P., Norris, J., Ali, H. E., Loux, S. C., Carossino, M., Esteller-Vico, A., Bailey, E. F., Kalbfleisch, T. S., Daels, P., \* Ball, B. A. (2019). Landscape of Overlapping Gene Expression in the Equine Placenta., *Genes*, 10(7). doi: 10.3390/genes10070503
  JIF: 3.331
- Dini, P., Norris, J., Ali, H. E., Loux, S. C., Carossino, M., Esteller-Vico, A., Bailey, E. F., Kalbfleisch, T. S., Daels, P., \* Ball, B. A. (2019). Landscape of Overlapping Gene Expression in the Equine Placenta., *Genes*, 10(7). doi: 10.3390/genes10070503
  JIF: 3.331
- Kalbfleisch, T. S., Rice, E. S., DePriest, Jr, M. S., Walenz, B. P., Hestand, M. S., Vermeesch, J. R., O Connell, B. L., Fiddes, I. T., Vershinina, A. O., Saremi, N. F., Petersen, J. L., Finno, C. J., Bellone, R. R., McCue, M. E., Brooks, S. A., Bailey, E. F., Orlando, L., Green, R. E., Miller, D. C., Antczak, D. F., MacLeod, J. N. (2018). Improved reference genome for the domestic horse increases assembly contiguity and composition., *Communications biology*, 1, 197. doi: 10.1038/s42003-018-0199-z
- Kalbfleisch, T. S., Rice, E. S., DePriest, Jr, M. S., Walenz, B. P., Hestand, M. S., Vermeesch, J. R., O Connell, B. L., Fiddes, I. T., Vershinina, A. O., Saremi, N. F., Petersen, J. L., Finno, C. J., Bellone, R. R., McCue, M. E., Brooks, S. A., Bailey, E. F., Orlando, L., Green, R. E., Miller, D. C., Antczak, D. F., MacLeod, J. N. (2018). Improved reference genome for the domestic horse increases assembly contiguity and composition., *Communications biology*, 1, 197. doi: 10.1038/s42003-018-0199-z
- + EBERTH, J. E., Graves, K. T., MacLeod, J. N., \* Bailey, E. F. (2018). Multiple alleles of ACAN associated with chondrodysplastic dwarfism in Miniature horses., ANIMAL GENETICS, 49(5), 413-420. doi: 10.1111/age.12682
  | JIF: 1.841
- Schaefer, R. J., Schubert, M. K., Bailey, E. F., Bannasch, D. L., Barrey, E. P., Bar-Gal, G. K., Brem, G. J., Brooks, S. A., Distl, O. K., Fries, R. K., Finno, C. J., Gerber, V. K., Haase, B. K., Jagannathan, V. K., Kalbfleisch, T. K., Leeb, T. K., Lindgren, G. K., Lopes, M. S., Mach, N. K., Machado, A. d., MacLeod, J. N., McCoy, A. K., Metzger, J. K., Penedo, C. K., Polani, S. K., Rieder, S. K., Tammen, I. K., Tetens, J. K., Thaller, G. P., Verini-Supplizi, A. P., Wade, C. M., Wallner, B. T., Orlando, L. S., Mickelson, J. R., McCue, M. E. (2017). Developing a 670k genotyping array to tag similar to 2M SNPs across 24 horse breeds, *BMC GENOMICS*, 18. doi: 10.1186/s12864-017-3943-8
  JIF: 3.729
- Carossino, M., Loynachan, A. T., Canisso, I. F., Cook, R. F., Campos, J. R., Nam, B., Go, Y. Y., Squires, E. L., Troedsson, Mats H. T., Swerczek, T. W., Del Piero, Fabio, Bailey, E. F., Timoney, P. J., Balasuriya, Udeni B. R. (2017). Equine Arteritis Virus Has Specific Tropism for Stromal Cells and CD8(+) T and CD21(+) B Lymphocytes but Not for Glandular Epithelium at the Primary Site of Persistent Infection in the Stallion Reproductive Tract, *JOURNAL OF VIROLOGY*, 91(13). doi: 10.1128/JVI.00418-17
  JIF: 4.368
- Sarkar, S., Bailey, E. F., Go, Y. Y., Cook, R. F., Kalbfleisch, T., Eberth, J., Chelvarajan, R. L., Shuck, K. M., Artiushin, S. C., Timoney, P. J., Balasuriya, Udeni B. R. (2016). Allelic Variation in CXCL16

Determines CD3(+) T Lymphocyte Susceptibility to Equine Arteritis Virus Infection and Establishment of Long-Term Carrier State in the Stallion, *PLOS GENETICS*, 12(12). doi: 10.1371/journal.pgen.1006467 | JIF: 6.100

- Sarkar, S., Chelvarajan, L., Go, Y. Y., Cook, F., Artiushin, S. C., Mondal, S. P., Anderson, K., Eberth, J., Timoney, P. J., Kalbfleisch, T. S., Bailey, E. F., Balasuriya, Udeni B. R. (2016). Equine Arteritis Virus Uses Equine CXCL16 as an Entry Receptor, *JOURNAL OF VIROLOGY*, 90(7), 3366-3384. doi: 10.1128/JVI.02455-15
  JIF: 4.663
- Balasuriya, Udeni B. R., Sarkar, S., Carossino, M., Go, Y. Y., Chelvarajan, L., Cook, R. F., Loynachan, A. T., Timoney, P. J., Bailey, E. F. (2016). Host Factors that Contribute to Equine Arteritis Virus Persistence in the Stallion: an Update, *JOURNAL OF EQUINE VETERINARY SCIENCE*, 43, S11-S17. doi: 10.1016/j.jevs.2016.05.017
  JIF: 0.882
- Rafati, N., Andersson, L. S., Mikko, S., Feng, C., Raudsepp, T., Pettersson, J., Janecka, J., Wattle, O., Ameur, A., Thyreen, G., Eberth, J., Huddleston, J., Malig, M., Bailey, E. F., Eichler, E. E., Dalin, G., Chowdary, B., Andersson, L., Lindgren, G., Rubin, C.-J. (2016). Large Deletions at the SHOX Locus in the Pseudoautosomal Region Are Associated with Skeletal Atavism in Shetland Ponies, *G3-GENES GENOMES GENETICS*, 6(7), 2213-2223. doi: 10.1534/g3.116.029645

#### Journal Article, Public or Trade Journal

- \* Bailey, E. F., Kalbfleisch, T. S., Petersen, J. (2020). A Trio of Breeding Myths Lexington, KY, *BloodHorse*, November 7, 2020(November 7, 2020), 52-55.
- \* Bailey, E. F., Kalbfleisch, T. S., Petersen, J. (2020). Genomics and Inbreeding Lexington, KY/ University of Kentucky, *Equine Disease Quarterly*, January 2020(January 2020), 2.
- \* Bailey, E. F. (2020). Genomics and Pattern Recognition Lexington, KY/ University of Kentucky, Equine Disease Quarterly, January 2020(January 2020), 2.
- \* Bailey, E. F. (2019). Update on Research at the University of Kentucky on Swayback in Horses; Lexixngton, KY/ ASHA, American Saddlebred Horse Journal, December 2019(December 2019), 1.

#### **Erratum, Journal**

Kalbfleisch, T. S., Rice, E. S., DePriest, M. S., Walenz, B. P., Hestand, M. S., Vermeesch, J. R., O'Connell, B. L., Fiddes, I. T., Vershinina, A. O., Saremi, N. F., Petersen, J. L., Finno, C. J., Bellone, R. R., McCue, M. E., Brooks, S. A., Bailey, E. F., Orlando, L., Green, R. E., Miller, D. C., Antczak, D. F., MacLeod, J. N. (2019). Erratum: Author Correction: Improved reference genome for the domestic horse increases assembly contiguity and composition (Communications biology (2018) 1 (197)), *Communications biology*, 2(1), 342. doi: 10.1038/s42003-019-0591-3

# **Sponsored Projects**

## Awarded

Balasuriya U., B.R., Artiushin S., C., Bailey E., F., Cook R., F., Horohov D., W., MacLeod J., N.,
Squires E., L., Timoney P., J., Troedsson M., H.T., Identification of Genetic Factors
Responsible for Establishment of Equine Arteritis Virus Carrier State in Stallions., Sponsored
by National Institute of Food and Agriculture Submitted: March 1, 2012. Funding Dates:
January 1, 2013 - December 31, 2018. | Awarded: \$2,925,456.00
OSPA ID: 201203011349

# Closed

Artiushin S., C., Balasuriya U., B.R., Timoney P., J., Bailey E., F., Cook R., F., Horohov D., W., MacLeod J., N., Squires E., L., Troedsson M., H.T., Identification of Genetic Factors Responsible for Establishment of Equine Arteritis Virus Carrier State in Stallions., Sponsored by National Institute of Food and Agriculture Submitted: March 1, 2012. Funding Dates: January 1, 2013 - December 31, 2018. | Awarded: \$2,927,583.00
Description: Dr. Timoney became PL on July 1, 2018 as a result of Dr. Balasuriya resigning his

Description: Dr. Timoney became PI on July 1, 2018 as a result of Dr. Balasuriya resigning his appointment at UK to take up a position at Louisiana State University. OSPA ID: 201203011349

Chambers T., M., Bailey E., F., Horohov D., W., Equine Interferon-Lambda, Sponsored by American Quarter Horse Foundation Submitted: October 28, 2014. Funding Dates: October 1, 2015 - September 30, 2016. | Awarded: \$44,957.00
OSPA ID: 201410281650

## Not Funded

 Balasuriya U., B.R., Bailey E., F., Cook R., F., Esteller Vico A., Horohov D., W., Singleton M., Timoney P., J., A novel mechanism of viral immune evasion: Hijacking and exploitation of the CXCL16/CXCR6 chemokine axis by equine arteritis virus during persistent infection in the stallion reproductive tract, Sponsored by National Institute of Health Submitted: September 26, 2017.Requested: \$2,896,406.00, | Awarded: \$0.00

Description: This grant was actually funded in the amount of \$1, 625,000. Dr. Balasuriya left the University of Kentucky and the grant is administered out of his new institution, Louisiana State University.

OSPA ID: 201709260713

- Balasuriya U., B.R., Bailey E., F., Ball B., A., Cook R., F., Horohov D., W., Loynachan A., T., Cellular and Molecular Basis of RNA Virus Persistence in the Mammalian Male Reproductive Tract: An Animal Model to Study the Role of CXCL16-CXCR6 Axis in Immune Modulation, Sponsored by National Institute of Health Submitted: October 18, 2016. | Awarded: \$0.00 OSPA ID: 201610180808
- Chambers T., M., Adams A., A., Bailey E., F., Horohov D., W., Nielsen M., K., Equine Interferon-lambda, Sponsored by National Institute of Food and Agriculture Submitted: July 11, 2016.Requested: \$499,857.00, | Awarded: \$0.00
  OSPA ID: 201607111318
- Nielsen M., K., Bailey E., F., Genetic determinants for equine cyathostomin infection, Sponsored by American Quarter Horse Foundation Submitted: October 29, 2017. | Awarded: \$0.00 OSPA ID: 201710291440
- Chambers T., M., Bailey E., F., Horohov D., W., Interferon-lambda response of the influenza-infected horse, Sponsored by American Quarter Horse Foundation Submitted: October 27, 2016. | Awarded: \$0.00

#### **Non-Sponsored Projects**

### Federal

# Hatch Multi-State On-going

- Bailey, E. F., National Animal Genome Research Program, (February 1, 2019 September 30, 2023).
- Bailey, E. F., National Animal Genome Research Program, National Institute of Food and Agriculture, (October 22, 2013 September 30, 2018).

#### Foundation

## Not Funded

- Chambers, T. M. (Principal), Bailey, E. F. (Co-Principal), Interferon lambda response of the influenza infected horse, American Quarter Horse Foundation. Awarded: \$49396.
- Chambers, T. M. (Principal), Bailey, E. F. (Co-Principal), Equine Interferon Lambda, Gluck Equine Research Foundation. Awarded: \$25000.

### On-going

Esteller Vico, A., Ball, B. A., Bailey, E. F., Simplified Genetics Tests for Equine Embryos during a Standard Embryo Transfer, American Quarter Horse Foundation, (2018 - 2019). Awarded: \$49173.

Description: Alejandro has taken a position at the University of Tennessee and is taking this grant with him.

Balasuriya, U. (Principal), Bailey, E. (Co-Principal), Timoney, P. J. (Co-Principal), Host Genetics of EHV1 Equine Encephalopathy, Gluck Equine Research Foundation, (2017 - Present). Awarded: \$25000.

# Industrial/Trade

#### Not Funded

Bailey, E. F. (Co-Principal), Easley, J. (Principal), Genetics of Brachygnathia in horses, Foundation for Veterinary Dentistry. Awarded: \$20000.

#### **On-going**

- Bailey, E. F., Juvenile Onset Lordosis in Saddlebred Horses, American Saddlebred Horse
   Association, (2019 2023). Awarded: \$20000.
   Description: Gift from American Saddlebred Horse Association to follow up previous studies
  - describing a hereditary aspect of juvenile onset lordosis

# Other

# **On-going**

Bailey, E. F., Immunogenetics Research, (2017 - Present). Awarded: \$16000. Description: gift funds for research in the area of genomics and immunogenetics

## **Presentations Given**

DeSilva K., Bailey E., Kalbfleisch T., (January 2018). Investigating Ancient Introgression between Caballine and non-Caballine Equids Plant and Animal Genome Conference, San Diego, CA, United States. International.

### **Invited Speaker**

- Bailey E., (October 31, 2018). Genomcis Update International Thoroughbred Breeders Forum, Thoroughbred Breeders of America (TOBA), Lexington, KY, United States.
- Corbo M., Piras F. M., Cappelletti E., Farevelli S., Colantuoni M., Bailey E., Raimondi E., Nergadze S. G., Giulotto E., (September 14, 2018). Birth, Evolution and Transmission of Equid Centromeres 12th Dorothy Russell Havemeyer International Equine Genome Workshop, Dorothy Russell Havemeyer Foundation, PAVIA, Italy. International.
- Cappelletti E., Corbo M., Piras F. M., Rausa A., DiMauro R. M., Bailey E., Nergadze S. G., Giulotto E., (September 13, 2018). Functional Annotations of Horse Centromeres 12th Dorothy Russell Havemeyer International Equine Genome Workshop, Dorothy Russell Havemyer Foundation, PAVIA, Italy. Accepted, International.
- Bailey E. F., Kalbfleisch T., Stephens J. C., Eberth J., DePriest M. S., Balasuriya U., (January 2017). Natural History of CXCL16 in Horses: Evidence for Caballine, non-caballine Hybridization Plant and Animal Genome Conference, San Diego, CA, United States. Accepted, International.

# Keynote or plenary address

- Bailey E. F., (October 26, 2020). Horsing Around with Science University of Florida Animal Science Graduate Student Symposium, University of Florida Department of Animal Science, FL, United States. State.
- Bailey E., (October 7, 2017). Art in the Genetics in Horse Breeding 2017 Breeder's Conference, Assisi, Italy, Pyramid Society of Breeders for Egyptian Arabian Horses, Assisi, Italy. International.

#### Other

Bailey E. F., Kalbfleisch T. S., Petersen J., (October 22, 2020). A Study of Thoroughbred Genetics Veterinary Science Department Seminars, University of Kentucky Department of Veterinary Science, Lexington, KY, United States. Accepted, Regional.

### **Podium Session**

- Bailey E. F., (January 25, 2020). Pattern Recognition by Breeders University of Kentucky Showcase, University of Kentucky College of Agriculture, Food and Environment, Lexington, KY, United States. Local.
- Bailey E. F., (October 28, 2019). Update on Saddlebred Horse Research Business Meeting of American Saddlebred Horse Association, American Saddlebred Horse Association, Lexington, United States. Invited, Local.
- De Silva K., Bailey E. F., Kalbfleisch T. S., (July 2019). Identify shared and species-specific k-mers in Equids and Caballines to characterize adaptive introgression events ISAG 2019, International Society for Animal Genetics, Lleida, Spain. Accepted, International.
- Carossino M., Loynachan A. T., Campos J. R., Nam B., Canisso I. F., Go Y. Y., Timoney P. J., Shuck K. M., Henney P., Troedsson M. H.T., Cook R. F., Swerczek T. W., Squires E. L., Bailey E. F., Balasuriya U. B.R., (2017). Equine Arteritis Virus Tissue and Cellular Tropism During Persistent Infection in the Stallion Reproductive Tract. XIVth International Nidovirus Symposium., Nidovirus Symposium, Kansas City, MO, United States. Accepted, International.

# **Poster Session**

- Sarkar S., Bailey E. F., Go Y. Y., Cook R. F., Kalbfleisch T., Eberth J., Chelvarajan L., Shuck K., Artiushin S., Timoney P. J., Balasuriya U. B.R., (June 2017). CXCL16 Gene Variants Regulate Equine Arteritis Virus Infection in Stallions NIDO conference, Kansas City, KS, United States. International.
- DeSilva K., Bailey E., Kalbfleisch T., (January 2017). EquCab3 Viewed through the Lens of Comparative Genomics for Non-Caballine Species Plant and Animal Genome Conference, San Diego, CA, United States. International.

# Teaching

# Teaching

Prefix Number - Section	Credit Hours	# Enrolled	Code Term Year
VS 307 - 001	3.00000 - 3.00000	22	10 Fall 2020-2021
VS 767 - 003	2.00000 - 2.00000	2	10 Fall 2020-2021
VS 507 - 001	2.00000 - 2.00000	4	30 Spring 2019-2020
VS 767 - 003	2.00000 - 2.00000	2	30 Spring 2019-2020
VS 307 - 001	3.00000 - 3.00000	44	10 Fall 2019-2020
VS 767 - 003	2.00000 - 2.00000	2	10 Fall 2019-2020
VS 507 - 001	2.00000 - 2.00000	5	30 Spring 2018-2019

VS 767 - 003	2.00000 - 2.00000	1	30 Spring 2018-2019
VS 791 - 003	1.00000 - 9.00000	1	30 Spring 2018-2019
VS 307 - 001	3.00000 - 3.00000	33	10 Fall 2018-2019
VS 748 - 001	0.00000 - 0.00000	1	10 Fall 2018-2019
VS 767 - 003	2.00000 - 2.00000	1	10 Fall 2018-2019
VS 791 - 005	1.00000 - 9.00000	1	10 Fall 2018-2019
VS 767 - 003	2.00000 - 2.00000	1	30 Spring 2017-2018
VS 307 - 001	3.00000 - 3.00000	36	10 Fall 2017-2018
VS 748 - 001	0.00000 - 0.00000	1	10 Fall 2017-2018
VS 767 - 003	2.00000 - 2.00000	1	10 Fall 2017-2018
VS 791 - 005	1.00000 - 9.00000	1	10 Fall 2017-2018
VS 597 - 001	1.00000 - 3.00000	4	30 Spring 2016-2017
VS 767 - 003	2.00000 - 2.00000	1	30 Spring 2016-2017
VS 307 - 001	3.00000 - 3.00000	30	10 Fall 2016-2017
VS 767 - 003	2.00000 - 2.00000	2	10 Fall 2016-2017
VS 597 - 001	1.00000 - 3.00000	8	30 Spring 2015-2016
VS 767 - 003	2.00000 - 2.00000	1	30 Spring 2015-2016

# **Teacher Course Evaluations**

Prefix Number - Section	Responses	TCE Course Quality Mean	TCE Teaching Quality Mean	Code Term Year
VS 307 - 001	8	4.38	4.75	10 Fall 2020-2021
VS 307 - 001	30	4.70	4.63	10 Fall 2019-2020
VS 307 - 001	17	4.82	4.82	10 Fall 2018-2019
VS 307 - 001	23	4.87	4.83	10 Fall 2017-2018
VS 307 - 001	18	4.61	4.56	10 Fall 2016-2017
VS 597 - 001	5	3.80	3.80	30 Spring 2015-2016

Note: With regards to Spring 2020 TCEs please consider the following from page 121 of the UK Playbook for Fall 2020, "It is essential that performance evaluation take into account the extenuating circumstances brought about by the disruption for faculty in all title series and the extraordinary work accomplished by faculty in response to the disruption. Academic leaders shall reiterate that TCEs should be but one indicator of effective teaching in both periodic merit reviews and tenure/promotion decisions. Evaluation of teaching must go beyond student evaluations alone."

# **Theses and Dissertations**

# **Dissertation Committee Chair**

Navid YousefiMashouf, Veterinary Science, "Genetic studies on Swayback in American Saddlebred Horses," Status: In-Process. (September 2017 - Present). John Eberth, Veterinary Science, "Genetic studies on dwarfism in miniature horses," Status: In-Process. (September 2013 - Present).

## **Dissertation Committee Member**

- Izabela de Assis Rocca, Veterinary Science, "Investigations of Sarcocyctis neurona," Status: In-Process. (September 2018 - Present).
- Jamie NOrris, Veterinary Science, "Studies of Sarcocystis neurona," Status: In-Process. (September 2016 Present).

Jessica Scarce, Veterinary Science, "ANTHELMINTIC RESISTANCE IN EQUINE PARASITES: MECHANISMS AND TREATMENT APPROACHES," Status: Completed. (May 2019). Academic Advising

- Academic year 2020-2021, 7 undergraduate students advised, 4 graduate student advised, Advising
   7 undergraduate students in the Agricultural Biotechnology Program
   Supervising 2 doctoral students
   on committee for 2 doctoral students.
- Academic year 2019-2020, 10 undergraduate students advised, 4 graduate student advised, Advised 10 undergraduate students in AB program Supervised 2 doctoral students On committee for 2 graduate students; one completed in 2019.
- Fall 2018-2019, 5 undergraduate students advised, 4 graduate student advised.
- Spring 2017-2018, 5 undergraduate students advised, 3 graduate student advised.
- Fall 2017-2018, 5 undergraduate students advised, 3 graduate student advised.
- Spring 2016-2017, 5 undergraduate students advised, 3 graduate student advised, Undergraduate students from Agricultural Biotechnology Graduate students in Veterinary Science (2 as major advisor).

# **Program and Curriculum Development**

#### 2018

Program/Curriculum Name - VS 507 Advanced Equine Genetics Description: Development of class that is scheduled to be offered in Spring 2019. I'd like to add the syllabus but that is not an option.

# Service

# **Department Service**

# **Committee Chair**

Strategic Planning Advisory Committee;, (August 2019 - July 2022).

Faculty Appointment, Promotion, Tenure and Performance Committee, (2017 - 2018). Committee Member

Instruction and Curriculum Committee, (August 2019 - August 2022).

Search Committee for Immunology Faculty, (2016 - 2017).

# **University Service**

# **Committee Chair**

- ad hoc review committee for Institute for Study of Free Enterprise, (March 2019 February 2020).
- University Senate Committee on Structure and Academic Organization, (August 2015 January 2018).

### **Committee Member**

Academic Area Advisory Committee for the Health Care Clinical Sciences (2020-2023), (August 2020 - August 2023).

Committee on Fellowship and Training, (August 2019 - August 2022).

University Senate Representative from College of Agriculture, (August 2015 - January 2018). Vice Chair 2017-2018

University of Kentucky Senate Council, (August 2015 - January 2018).

# **Professional Service**

# Board of Advisors of a Company

Morris Animal Foundation, Provides research grants for animal health research, (November 2019 - October 2023).

#### **Committee Member**

Dorothy Russell Havemeyer Foundation, Support of scientific conferences related to research and collaborations on genomic research of horses, (August 2019 - Present).

Pan American Society for Pigment Cell Research Conference 2021, Professional society, largely human medical, related to diseases of pigment cells, (May 2020 - September 2021). Editor, Associate Editor

Journal of Heredity, Publication of Scientific papers, (January 2004 - Present). Editor, Conference Proceedings Journal of Heredity, Guest editor on special issue, (January 2020 - Present). Editorial Review Board Member

BMC Genomics, Scientific publications, (January 2005 - Present).

Equine Veterinary Journal, Publisher of scientific reports, (January 2012 - December 2018). Coordinator

United States Department of Agriculture- NRSP8, Oversight of Workshop on horse genomics, (October 1995 - September 2023).

#### Workshop Organizer

12th Dorothy Russell Havemeyer Horse Genome Workshop, Organize workshop meeting in Pavia, Italy with Profs. Elena Giulotto and Elena Raimondi, (January 2017 - October 2018).

### **Public Service**

#### **Guest Speaker**

The Horse (a lay publication), Bailey, E., Brooks, S.A. (2017) Webinar: The Horse: Understanding Equine Genetic Diseases: Aug. 10., (August 10, 2018 - Present).

# **Professional Development**

#### **Professional Memberships**

Equine Science Society. International. (2012 - Present).

American Genetics Association. International. (2004 - Present).

International Society for Animal Genetics. International. (1982 - Present).

#### **Development Activities Attended**

#### Sabbatical

Sabbatical Leave for Ernest Bailey. (February 1, 2018 - July 31, 2018). University of Pavia. International. Pavia, Italy.

During the 6 month sabbatical, Bailey learned how to apply computer programs for genomic analyses and participated in research on centromere location and genomics of equids. Two presentations have been made and publication are in preparation.

#### **Awards and Honors**

USDA-NRSP8 Distinguished Lecturer; Plant and Animal Genome Conference, San Diego, CA; Jan 13, 2019. Scholarship/Research/Creative, National. (January 13, 2019).

*Fellow of the International Society for Animal Genetics*. Service, Professional, Prestigous international fellowship, International. (July 20, 2017).

# Dr. Roger M. Brown

College of Agriculture, Food and Environment Department of Agricultural Economics 2016-2022 CV

# Education

MPA, School of Public Policy and Administration, University of Kentucky, 2008. Major: Public Administration

PHD, Auburn University, 2004. Major: Forestry and Wildlife Sciences

MPlann, University of Auckland, 1999. Major: Environmental Planning

MA, University of Kentucky, 1998. Major: Diplomacy and International Commerce

BA, University of Kentucky, 1996. Major: English Language and Literature, General

# **Administrative Assignments**

Director of Undergraduate Studies (Agricultural Economics). July 1, 2016 - Present

Responsibilities: (1) manage the undergraduate program, (2) obtain approvals for program curricular changes, (3) conduct program assessment, (4) develop course schedules with others, (5) coordinate internship course, (6) oversee local student scholarship award processes, (7) meet with and recruit prospective students, and (8) mentor graduate students.

# **Research and Scholarship**

## **Intellectual Contributions**

\* = Senior Author ~ = Corresponding Author + = Grad/Prof Student # = Post Doc ^ = Undergraduate WOS = Web of Science JIF = Journal Impact Factor TC = Journal Total Cites SNIP = Source Normalize Impact per Paper SJR = Scimago Journal Rank

#### Published

#### Journal Article, Academic Journal

\* Brown, R. M., Zuo, N., Shockley, J. M., Buck, S. (2019). An Authentic Learning Approach to Group Assignments: An Analysis of Student Attitudes, *Applied Economics Teaching Resources*, Vol 1(Issue 2), 1-13. doi: 10.22004/ag.econ.300069 Alternate Indicator of Impact This journal is the newest, peer-reviewed academic journal under the umbrella of the Agricultural & Applied Economics Association (AAEA), our discipline's primary association. Applied Economics Teaching Resources is the primary publication for teaching within the agricultural economics profession. Author Role:

- S. Buck contributed to Methodology Design and Writing-review and editing.
- \* Brown, R. M., Zuo, N., Shockley, J. M., Buck, S. (2019). The Project Manager/Private Contractor Approach to Group Assignments, *Applied Economics Teaching Resources*, Volume 1(Issue 2), 64-73. doi: 10.22004/ag.econ.300073
   Alternate Indicator of Impact This journal is the newest, peer-reviewed academic journal under the umbrella of the Agricultural & Applied Economics Association (AAEA), our discipline's primary association. Applied Economics Teaching Resources is the primary publication for teaching within the agricultural economics profession. Author Role:
  - S. Buck contributed to *Writing-review and editing*.

# **Non-Sponsored Projects**

### University

### **On-going**

Brown, R. M. (Co-Principal), Dillon, C. R. (Co-Principal), Hunter, J. L. (Co-Principal), Mains, M. (Co-Principal), Vincelli, P. (Co-Principal), Online M.S. Program to Synergize College-Wide Online Instruction., UK Provost Office (UK Online), (August 15, 2019 - August 15, 2022). Awarded: \$100000.

Description: Develop online MS degree program in Science Translation and Outreach that serves extension agents across the state and country.

# **Presentations Given**

# **Invited Speaker**

Brown R. M., Pusateri J., (February 8, 2019). Universal Design for Learning: How to Identify and Reduce Barriers to Learning. Department Seminar Series, UK Plant & Soils Department, Lexington, KY. Invited, Department.

# **Podium Session**

- Brown R. M., Vassalos M., Penn J., Kibler M., DiBenedetto C., (February 2, 2020). Online Teaching: Are You Closer Than You Think? Southern Agricultural Economics Association, Louisville, KY, United States. Accepted, Regional.
- Brown R. M., Shockley J. M., Zuo N., (August 5, 2018). How Can Authentic Business Models Improve Student Attitudes About Group Assignments? Agricultural & Applied Economics Association Annual Meeting, Washington, DC, United States. Accepted, National.

#### **Poster Session**

- Brown R., Ricketts K., Hains B., Beard T., Gantz X., (June 28, 2017). Using Natural Science Models to Improve Social Science Learning. North American Colleges and Teachers of Agriculture (NACTA), NACTA, West Lafayette, ID, United States. Accepted, International.
- Brown R., Thor A., (November 6, 2016). Remotely-Guided Study Abroad: Benefits and Risks. Association of International Education (NAFSA), Region VI Conference, NAFSA, Indianapolis, ID, United States. Accepted, Regional.

Brown R. M., Rossi A., (June 21, 2016). Clarity and Accuracy in Plagiarism Policies at Land Grant Institutions. North American College and Teachers of Agriculture Conference, NACTA, Honolulu, HI, United States. Accepted, International.

Brown R., Williamson S., (June 21, 2016). Six Ways to Discuss. North American Colleges and Teachers of Agriculture, NACTA, Honolulu, HI, United States. Accepted, International.

# Teaching

### Teaching

Prefix Number - Section	Credit Hours	# Enrolled	Code Term Year
AEC 305 - 201	3.00000 - 3.00000	41	10 Fall 2021-2022
AEC 306 - 201	3.00000 - 3.00000	17	10 Fall 2021-2022
AEC 306 - 202	3.00000 - 3.00000	9	10 Fall 2021-2022
AEC 399 - 001	1.00000 - 6.00000	1	10 Fall 2021-2022
AEC 399 - 012	1.00000 - 6.00000	1	10 Fall 2021-2022
AEC 399 - 016	1.00000 - 6.00000	1	10 Fall 2021-2022
AEC 580 - 001	1.00000 - 3.00000	1	10 Fall 2021-2022
AEC 395 - 010	1.00000 - 3.00000	8	50 Summer 2020-2021
AEC 395 - 210	1.00000 - 3.00000	1	50 Summer 2020-2021
AEC 399 - 010	1.00000 - 6.00000	5	50 Summer 2020-2021
AEC 399 - 011	1.00000 - 6.00000	9	50 Summer 2020-2021
AEC 399 - 012	1.00000 - 6.00000	3	50 Summer 2020-2021
AEC 399 - 013	1.00000 - 6.00000	1	50 Summer 2020-2021
AEC 399 - 014	1.00000 - 6.00000	1	50 Summer 2020-2021
AEC 399 - 015	1.00000 - 6.00000	3	50 Summer 2020-2021
AEC 399 - 016	1.00000 - 6.00000	1	50 Summer 2020-2021
AEC 399 - 210	1.00000 - 6.00000	1	50 Summer 2020-2021
AEC 300 - 001	1.00000 - 3.00000	3	30 Spring 2020-2021
AEC 305 - 201	3.00000 - 3.00000	79	30 Spring 2020-2021
AEC 306 - 201	3.00000 - 3.00000	17	30 Spring 2020-2021
AEC 306 - 202	3.00000 - 3.00000	18	30 Spring 2020-2021
AEC 399 - 003	1.00000 - 6.00000	1	30 Spring 2020-2021
AEC 399 - 004	1.00000 - 6.00000	1	30 Spring 2020-2021
AEC 399 - 005	1.00000 - 6.00000	1	30 Spring 2020-2021
AEC 399 - 010	1.00000 - 6.00000	6	30 Spring 2020-2021

AEC 399 - 014	1.00000 - 6.00000	2	30 Spring 2020-2021
AEC 399 - 230	1.00000 - 6.00000	1	20 Winter 2020-2021
AEC 305 - 002	3.00000 - 3.00000	29	10 Fall 2020-2021
AEC 305 - 201	3.00000 - 3.00000	24	10 Fall 2020-2021
AEC 306 - 201	3.00000 - 3.00000	23	10 Fall 2020-2021
AEC 306 - 202	3.00000 - 3.00000	3	10 Fall 2020-2021
AEC 399 - 001	1.00000 - 6.00000	1	10 Fall 2020-2021
AEC 399 - 003	1.00000 - 6.00000	1	10 Fall 2020-2021
AEC 399 - 005	1.00000 - 6.00000	2	10 Fall 2020-2021
AEC 399 - 012	1.00000 - 6.00000	1	10 Fall 2020-2021
AEC 399 - 017	1.00000 - 6.00000	1	10 Fall 2020-2021
AEC 395 - 010	1.00000 - 3.00000	15	50 Summer 2019-2020
AEC 399 - 011	1.00000 - 6.00000	1	50 Summer 2019-2020
AEC 399 - 013	1.00000 - 6.00000	1	50 Summer 2019-2020
AEC 399 - 016	1.00000 - 6.00000	1	50 Summer 2019-2020
AEC 399 - 022	1.00000 - 6.00000	1	50 Summer 2019-2020
AEC 399 - 023	1.00000 - 6.00000	4	50 Summer 2019-2020
AEC 399 - 024	1.00000 - 6.00000	1	50 Summer 2019-2020
AEC 300 - 001	1.00000 - 3.00000	7	30 Spring 2019-2020
AEC 305 - 001	3.00000 - 3.00000	25	30 Spring 2019-2020
AEC 305 - 201	3.00000 - 3.00000	46	30 Spring 2019-2020
AEC 306 - 201	3.00000 - 3.00000	18	30 Spring 2019-2020
AEC 306 - 202	3.00000 - 3.00000	14	30 Spring 2019-2020
AEC 395 - 003	1.00000 - 3.00000	2	30 Spring 2019-2020
AEC 396 - 001	1.00000 - 1.00000	3	30 Spring 2019-2020
AEC 396 - 002	1.00000 - 1.00000	1	30 Spring 2019-2020
AEC 399 - 001	1.00000 - 6.00000	2	30 Spring 2019-2020
AEC 399 - 010	1.00000 - 6.00000	2	30 Spring 2019-2020
AEC 399 - 012	1.00000 - 6.00000	1	30 Spring 2019-2020
AEC 305 - 002	3.00000 - 3.00000	14	10 Fall 2019-2020
AEC 305 - 201	3.00000 - 3.00000	50	10 Fall 2019-2020
AEC 306 - 201	3.00000 - 3.00000	23	10 Fall 2019-2020
AEC 306 - 202	3.00000 - 3.00000	9	10 Fall 2019-2020
AEC 396 - 001	1.00000 - 1.00000	6	10 Fall 2019-2020
AEC 396 - 002	1.00000 - 1.00000	1	10 Fall 2019-2020
AEC 399 - 001	1.00000 - 6.00000	4	10 Fall 2019-2020
AEC 399 - 009	1.00000 - 6.00000	1	10 Fall 2019-2020
AEC 399 - 011	1.00000 - 6.00000	1	10 Fall 2019-2020
AEC 399 - 012	1.00000 - 6.00000	2	10 Fall 2019-2020
AEC 399 - 015	1.00000 - 6.00000	1	10 Fall 2019-2020
AEC 396 - 010	1.00000 - 1.00000	1	50 Summer 2018-2019
AEC 399 - 011	1.00000 - 6.00000	1	50 Summer 2018-2019
AEC 399 - 014	1.00000 - 6.00000	1	50 Summer 2018-2019
AEC 399 - 016	1.00000 - 6.00000	1	50 Summer 2018-2019
AEC 399 - 017	1.00000 - 6.00000	2	50 Summer 2018-2019
AEC 399 - 019	1.00000 - 6.00000	1	50 Summer 2018-2019

AEC 399 - 021	1.00000 - 6.00000	1	50 Summer 2018-2019
AEC 399 - 023	1.00000 - 6.00000	9	50 Summer 2018-2019
AEC 399 - 026	1.00000 - 6.00000	1	50 Summer 2018-2019
AEC 305 - 001	3.00000 - 3.00000	33	30 Spring 2018-2019
AEC 305 - 201	3.00000 - 3.00000	57	30 Spring 2018-2019
AEC 306 - 201	2.00000 - 2.00000	16	30 Spring 2018-2019
AEC 306 - 202	2.00000 - 2.00000	15	30 Spring 2018-2019
AEC 399 - 005	1.00000 - 6.00000	2	30 Spring 2018-2019
AEC 399 - 006	1.00000 - 6.00000	1	30 Spring 2018-2019
AEC 399 - 007	1.00000 - 6.00000	1	30 Spring 2018-2019
AEC 399 - 008	1.00000 - 6.00000	1	30 Spring 2018-2019
AEC 399 - 009	1.00000 - 6.00000	1	30 Spring 2018-2019
AEC 399 - 010	1.00000 - 6.00000	1	30 Spring 2018-2019
GEN 109 - 003	1.00000 - 6.00000	9	30 Spring 2018-2019
AEC 305 - 002	3.00000 - 3.00000	11	10 Fall 2018-2019
AEC 305 - 201	3.00000 - 3.00000	64	10 Fall 2018-2019
AEC 306 - 201	2.00000 - 2.00000	18	10 Fall 2018-2019
AEC 306 - 202	2.00000 - 2.00000	9	10 Fall 2018-2019
AEC 395 - 006	1.00000 - 3.00000	1	10 Fall 2018-2019
AEC 396 - 002	1.00000 - 1.00000	1	10 Fall 2018-2019
AEC 399 - 001	1.00000 - 6.00000	3	10 Fall 2018-2019
AEC 399 - 010	1.00000 - 6.00000	1	10 Fall 2018-2019
AEC 399 - 014	1.00000 - 6.00000	1	10 Fall 2018-2019
AEC 399 - 016	1.00000 - 6.00000	1	10 Fall 2018-2019
AEC 399 - 018	1.00000 - 6.00000	3	10 Fall 2018-2019
AEC 580 - 002	1.00000 - 3.00000	1	10 Fall 2018-2019
AEC 395 - 010	1.00000 - 3.00000	1	50 Summer 2017-2018
AEC 396 - 710	1.00000 - 1.00000	1	50 Summer 2017-2018
AEC 396 - 711	1.00000 - 1.00000	5	50 Summer 2017-2018
AEC 399 - 010	1.00000 - 6.00000	5	50 Summer 2017-2018
AEC 399 - 012	1.00000 - 6.00000	2	50 Summer 2017-2018
AEC 399 - 013	1.00000 - 6.00000	1	50 Summer 2017-2018
AEC 399 - 014	1.00000 - 6.00000	2	50 Summer 2017-2018
AEC 399 - 016	1.00000 - 6.00000	1	50 Summer 2017-2018
AEC 399 - 017	1.00000 - 6.00000	3	50 Summer 2017-2018
AEC 399 - 020	1.00000 - 6.00000	1	50 Summer 2017-2018
AEC 399 - 021	1.00000 - 6.00000	1	50 Summer 2017-2018
AEC 399 - 022	1.00000 - 6.00000	1	50 Summer 2017-2018
AEC 399 - 023	1.00000 - 6.00000	1	50 Summer 2017-2018
AEC 399 - 024	1.00000 - 6.00000	1	50 Summer 2017-2018
AEC 399 - 025	1.00000 - 6.00000	2	50 Summer 2017-2018
AEC 399 - 026	1.00000 - 6.00000	1	50 Summer 2017-2018
AEC 305 - 001	3.00000 - 3.00000	29	30 Spring 2017-2018
AEC 305 - 201	3.00000 - 3.00000	67	30 Spring 2017-2018
AEC 306 - 201	2.00000 - 2.00000	12	30 Spring 2017-2018
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1.00000 0.00000	-	2016-2017
1.00000 - 6.00000	1	52 2nd summer
		2016-2017
3.00000 - 3.00000	32	30 Spring 2016-2017
		30 Spring 2016-2017
2.00000 - 2.00000	12	30 Spring 2016-2017
2.00000 - 2.00000	22	30 Spring 2016-2017
1.00000 - 6.00000	2	30 Spring 2016-2017
1.00000 - 6.00000	7	30 Spring 2016-2017
	19	10 Fall 2016-2017
		10 Fall 2016-2017
	12	10 Fall 2016-2017
2.00000 - 2.00000	18	10 Fall 2016-2017
2.00000 - 2.00000	10	10 Fail 2010-2017
	1.00000 - 6.00000         1.00000 - 6.00000         3.00000 - 3.00000         3.00000 - 3.00000         2.00000 - 2.00000	1.00000 - 6.00000       1         1.00000 - 6.00000       1         1.00000 - 6.00000       1         1.00000 - 6.00000       1         1.00000 - 6.00000       1         1.00000 - 6.00000       1         1.00000 - 6.00000       1         1.00000 - 6.00000       1         1.00000 - 6.00000       1         3.00000 - 15.00000       1         3.00000 - 3.00000       62         2.00000 - 2.00000       11         2.00000 - 2.00000       1         1.00000 - 6.00000       5         1.00000 - 6.00000       1         1.00000 - 6.00000       1         1.00000 - 6.00000       1         1.00000 - 6.00000       1         1.00000 - 6.00000       1         1.00000 - 6.00000       1         1.00000 - 6.00000       1         1.00000 - 6.00000       1         1.00000 - 6.00000       1         1.00000 - 6.00000       1         1.00000 - 6.00000       1         1.00000 - 6.00000       1         1.00000 - 6.00000       1         1.00000 - 6.00000       1         1.00000 - 6.000000       1         1.00000 -

AEC 305 - 001	3.00000 - 3.00000	28	30 Spring 2015-2016
AEC 305 - 201	3.00000 - 3.00000	63	30 Spring 2015-2016
AEC 306 - 401	2.00000 - 2.00000	19	30 Spring 2015-2016

# **Teacher Course Evaluations**

Prefix Number - Section	Responses	TCE Course	TCE Teaching	Code Term Year
	-	Quality Mean	Quality Mean	
AEC 305 - 001	7	4.71	5.00	30 Spring
				2019-2020
AEC 305 - 001	15	4.40	4.53	30 Spring
				2018-2019
AEC 305 - 001	14	4.23	4.43	30 Spring
				2017-2018
AEC 305 - 001	10	3.50	3.70	30 Spring
				2016-2017
AEC 305 - 001	13	3.15	3.08	30 Spring
				2015-2016
AEC 305 - 002	8	4.50	4.75	10 Fall 2020-2021
AEC 305 - 002	6	4.00	3.83	10 Fall 2019-2020
AEC 305 - 002	9	4.44	4.56	10 Fall 2017-2018
AEC 305 - 002	6	4.00	4.33	10 Fall 2016-2017
AEC 305 - 201	30	4.57	4.73	30 Spring
				2020-2021
AEC 305 - 201	12	4.67	4.91	10 Fall 2020-2021
AEC 305 - 201	23	4.74	4.61	30 Spring
				2019-2020
AEC 305 - 201	26	4.44	4.38	10 Fall 2019-2020
AEC 305 - 201	19	4.63	4.78	30 Spring
				2018-2019
AEC 305 - 201	26	4.35	4.50	10 Fall 2018-2019
AEC 305 - 201	21	4.43	4.55	30 Spring
450.005 .004				2017-2018
AEC 305 - 201	24	4.29	4.43	10 Fall 2017-2018
AEC 305 - 201	29	4.38	4.55	30 Spring
450,205, 204		4.40	4.70	2016-2017
AEC 305 - 201	24	4.48	4.70	10 Fall 2016-2017
AEC 305 - 201	24	3.38	3.50	30 Spring
450,200, 201	10	2.50	2.00	2015-2016
AEC 306 - 201	10	3.50	3.80	30 Spring
AFC 20C 201		2.40	2.00	2020-2021
AEC 306 - 201	5	3.40	3.60	30 Spring
AEC 306 - 201	6	2 02	4.33	2019-2020
AEC 300 - 201	6	3.83	4.33	10 Fall 2019-2020

AEC 306 - 201	8	3.38	3.63	30 Spring
				2018-2019
AEC 306 - 201	6	4.00	4.50	10 Fall 2018-2019
AEC 306 - 201	5	3.60	4.00	30 Spring
				2017-2018
AEC 306 - 201	5	3.00	4.00	10 Fall 2016-2017
AEC 306 - 202	5	4.20	4.40	30 Spring
				2018-2019
AEC 306 - 401	11	4.09	4.18	10 Fall 2017-2018
AEC 306 - 401	9	3.11	3.67	30 Spring
				2016-2017
AEC 306 - 401	6	4.50	4.67	10 Fall 2016-2017
AEC 306 - 401	12	3.33	3.58	30 Spring
				2015-2016

Note: With regards to 2020 TCEs please consider the following from page 121 of the UK Playbook for Fall 2020, "It is essential that performance evaluation take into account the extenuating circumstances brought about by the disruption for faculty in all title series and the extraordinary work accomplished by faculty in response to the disruption. Academic leaders shall reiterate that TCEs should be but one indicator of effective teaching in both periodic merit reviews and tenure/promotion decisions. Evaluation of teaching must go beyond student evaluations alone."

# **Directed Student Learning (excluding theses, dissertations)**

Abbey Dickerson. Directed Individual/Independent Study. *AEC 395. "Multi-Criteria Decision Analysis Comparing Roundup PowerMAX and Gramoxone SL 2.0".* Completed (June 1, 2020 -July 28, 2020).

Description: Student advisor, independent study course.

Abby Clas. Directed Individual/Independent Study. *AEC 395. "Choosing the Ideal Variety of Corn: A Multicriteria Decision Analysis"*. Completed (June 1, 2020 - July 28, 2020). Description: Student advisor, independent study course.

Colton Campbell. Directed Individual/Independent Study. *AEC 395. "K&T Show Pigs: Build the Brand"*. Completed (June 1, 2020 - July 28, 2020).

Description: Student advisor, independent study course.

 Daniel LaJeunesse. Directed Individual/Independent Study. AEC 395. "The Concern of Reopening the Automotive Shop.". Completed (June 1, 2020 - July 28, 2020).
 Description: Student advisor, independent study course.

Derante Sanders-Hughes. Directed Individual/Independent Study. AEC 395. "Multi-criteria Decision Analysis for Amazon Prime Deliveries by BAML Lexington, KY.". Completed (June 1, 2020 - July 28, 2020).

Description: Student advisor, independent study course.

Garrett Ratliff. Directed Individual/Independent Study. *AEC 395. "Banners Bar and Grill: How Best to Incentivize Employment During Covid-19."*. Completed (June 1, 2020 - July 28, 2020). Description: Student advisor, independent study course.

Julia Horton. Directed Individual/Independent Study. *AEC 395. "An Analysis Exploring Different Options for a New Event Space in Lexington, Virginia."*. Completed (June 1, 2020 - July 28,

2020).

Description: Student advisor, independent study course.

Kameron Nelson. Directed Individual/Independent Study. AEC 395. "Revitalizing Chicago Communities: The Greater Auburn Gresham Development Corporation Business Consulting Report.". Completed (June 1, 2020 - July 28, 2020).

Description: Student advisor, independent study course.

Keagan Robertson. Directed Individual/Independent Study. AEC 395. "Multi-criteria Decision Analysis for RCPS Louisville.". Completed (June 1, 2020 - July 28, 2020). Description: Student advisor, independent study course.

Porter Ramsey. Directed Individual/Independent Study. *AEC 395. "Tonga Boards: Who Is the Best Manufacturer?"*. Completed (June 1, 2020 - July 28, 2020). Description: Student advisor, independent study course.

Ridge Hickman. Directed Individual/Independent Study. AEC 395. "The Relaunch of Sports at Marshall University.". Completed (June 1, 2020 - July 28, 2020). Description: Student advisor, independent study course

- Trevor Gifford. Directed Individual/Independent Study. *AEC 395. "Multi-Criteria Decision Analysis: Post-Graduate Career Options for Bachelor's Degree Recipients."*. Completed (June 1, 2020 - July 28, 2020).
- Whitney Marcum. Directed Individual/Independent Study. *AEC 395. "Multi-Criteria Decision Analysis for Mulberry Orchard."*. Completed (June 1, 2020 July 28, 2020). Description: Student advisor, independent study course.

Zach Sparks. Directed Individual/Independent Study. *AEC 395. "Career Planning Multicriteria Decision Analysis.* Completed (June 1, 2020 - July 28, 2020). Description: Student advisor, independent study course.

Griffin Stulman. Directed Individual/Independent Study. *AEC 395. "Institutional Fundraising After Covid-19."*. Completed (January 15, 2020 - May 5, 2020). Description: Student advisor, independent study course

Zoe Gabrielson. Directed Individual/Independent Study. *AEC 395. "Quiz Bowl Syllabus and Lesson Plans."*. Completed (January 15, 2020 - May 5, 2020). Description: Student advisor, independent study course

Noah Cartwright. Directed Individual/Independent Study. *AEC 395. "Economic and Non-Economic Sensory Experiments with Food: An Example Comparison"*. Completed (September 2018 - December 2018).

Description: Student advisor, independent study course

Molly Mathistad. Directed Individual/Independent Study. *HON 398. "Analysis of Campus Accessibility at the University of Kentucky".* Completed (January 2018 - May 2018). Description: Student advisor, independent study course

 X.Gantz and T. Beard. Directed Individual/Independent Study. "Using Natural Science Models to Improve Social Science Learning". (August 2016 - June 2017).
 Description: With other faculty, I mentored two students (one graduate and one undergraduate) who presented at the 2017 North American Colleges & Teachers of Agriculture (NACTA) conference: Purdue University, IN. June 28-July 1.

#### **Academic Advising**

50 Summer 2021-2022, 6 undergraduate students advised.

10 Fall 2021-2022, 12 undergraduate students advised.

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30 Spring 2020-2021, 17 undergraduate students advised.

- 10 Fall 2020-2021, 30 undergraduate students advised, mostly juniors and seniors. I directly supervised 1 student and indirectly supervised 4 students taking AEC 399 (student internships).
- 50 Summer 2019-2020, 8 undergraduate students advised, as needed, mostly juniors and seniors. I directly supervised 1 student and indirectly supervised 8 students taking AEC 399 (student internships). I also supervised 15 students doing independent study (AEC 395).
- 30 Spring 2019-2020, 30 undergraduate students advised, mostly juniors and seniors. I directly supervised 2 students and indirectly supervised 3 students taking AEC 399 (student internships). I also supervised 2 students doing independent study (AEC 395).
- 10 Fall 2019-2020, 30 undergraduate students advised, mostly juniors and seniors. I directly supervised 2 students and indirectly supervised 3 students taking AEC 399 (student internships).
- 50 Summer 2018-2019, 24 undergraduate students advised, mostly juniors and seniors. I directly supervised 1 student and indirectly supervised 17 students taking AEC 399 (student internships). This academic year, more of my students (100%) rated their overall satisfaction with my advising as "Very Satisfied" versus the Department average (76%) and College average (69%).
- 30 Spring 2018-2019, 24 undergraduate students advised, mostly juniors and seniors. I also directly supervised 1 student and indirectly supervised 5 students taking AEC 399 (student internships). This academic year, more of my students (100%) rated their overall satisfaction with my advising as "Very Satisfied" versus the Department average (76%) and College average (69%).
- 10 Fall 2018-2019, 26 undergraduate students advised, mostly juniors and seniors. I also directly supervised 3 students and indirectly supervised 6 students taking AEC 399 (student internships). This academic year, more of my students (100%) rated their overall satisfaction with my advising as "Very Satisfied" versus the Department average (76%) and College average (69%).
- 50 Summer 2017-2018, 40 undergraduate students advised, mostly juniors and seniors. I also directly supervised 5 students and indirectly supervised 16 students taking AEC 399 (student internships).
- 30 Spring 2017-2018, 40 undergraduate students advised, mostly juniors and seniors. I also directly supervised 2 students and indirectly supervised 7 students taking AEC 399 (student internships). Upon my nomination, one advisee received a University-wide student award: Molly Mathistad Wildcat Service Dogs "Student Organization Officer of the Year Award", 2018.

2016-2017, 45 undergraduate students advised, mostly juniors and seniors. I was nominated for the "Ken Freedman Outstanding Advisor Award," and I supervised 5 students taking AEC 399 (student internships), mostly during the summer and fall.

# **Program and Curriculum Development**

# 2016

Program/Curriculum Name - Undergraduate Program in Agricultural Economics

Description: During this period, I (1) assessed the department's undergraduate program as required by UK OSPIE; (2) obtained approval at all levels for updates to undergraduate course prerequisites (numerous) and program requirements (e.g., changes to specialty support options, law-related courses, CS 101/B&E 105, etc.); (3) created and obtained approval at all levels for the College's first departmental honors criteria; (4) designed and obtained approval at all levels for a new experimental UK Core course (AEC 101/UKC 130); and (5) established formal prerequisite review procedures for student who earn a D in ECO 201 or calculus after three attempts. Also in 2016, I received a \$2,000 grant from UK Distance Learning Programs to develop AEC 306 as a distance learning course.

# 2017

Program/Curriculum Name - Undergraduate Program in Agricultural Economics

Description: During this period, I (1) assessed the department's undergraduate program as required by UK OSPIE; (2) began approval process for six new undergraduate courses including three former study abroad courses, a former equine marketing course, a former Excel course, and AEC 500; (3) streamlined, coordinated, and redesigned departmental expectations for online delivery of AEC 399; and (4) obtained approval at all levels for two University Scholar's programs (AEC + AEC and AEC + Patterson School).

# 2018

Program/Curriculum Name - University Scholars Programs (multiple)

Description: I led the design and development of three new University Scholars Programs to provide our highest-performing students accelerated pathways (one less semester) to a joint BS and graduate degree. The three programs approved in 2018 and 2019 are: (1) BS in Ag Econ + MS in Ag Econ (2) BS in Ag Econ + MA in Diplomacy and International Commerce (3) BS in Ag Econ + MPA in Public Administration

Program/Curriculum Name - AEC Undergraduate Opportunity Fund Program Description: With others, I designed and developed and now manage this new program that encourages AEC undergraduate students to identify, request funding for, and pursue special career-enhancing opportunities. In its first year, the program distributed approximately \$20,000 in support of 14 students.

Program/Curriculum Name - Advanced Studies Option in Agricultural Economics (BS) Description: With others, I designed and developed this new degree option that targets high-performing students (e.g., from the Lewis Honors College) who are interested in graduate school. I shepherded this proposal through all levels of approval. Final approval was May 2018.

# 2019

Program/Curriculum Name - Master of Science (MS) in Science Translation and Outreach Description: With others, I completed a year-long effort to develop a new, innovative master's degree (100% online) that targets extension agents in Kentucky and throughout the country. I made significant contributions to (1) identify the program concept, (2) design the program curriculum, (3) develop the program budget, (4) prepare the Senate proposal form, and (5) present the proposal to the Council on Post-Secondary Education. The University Senate approved the program 22 April 2019, and the first year student cohort (n=15) began Fall 2019.

# **Other Credit and Non-Credit Instructional Activities**

#### **Club Advisor**

Participants: Undergraduate Students, 90,

Description: I advise the Wildcat Service Dogs club president about how to maintain institutional affiliation (2011 - Present).

Participants: Undergraduate Students, 10,

Description: I advise the UK Bass Fishing club president about how to maintain institutional affiliation (2010 - Present).

Participants: Undergraduate Students, 15,

Description: I advise the UK Polo Team club president about how to maintain institutional affiliation (2008 - Present).

# Service

# **Department Service**

**Committee Chair** 

Undergraduate Committee, (2016 - Present). Committee Member

Undergraduate Committee, (2005 - Present). Faculty Mentor

AEC Student Quiz Bowl Competition Co-Coordinator, (2019 - Present).

# **College Service**

**Committee Chair** 

GEN 100 Periodic Program Review, (February 1, 2020 - February 15, 2020). Committee Member

Undergraduate Curriculum Committee, (July 1, 2018 - Present).

Undergraduate Student Success Team, (January 2018 - May 15, 2020).

Undergraduate Curriculum Committee (L. Grabau, Chair), (July 1, 2016 - June 30, 2017).

AEC Department Chair Search Committee (T. Baker, Chair), (November 2016 - April 2017). Peer Reviewer

KAES Research Proposal Reviewer, (July 2018).

# **University Service**

# **Committee Chair**

- University Senate Rules and Elections Committee, Elections Subcommittee, (August 15, 2016 Present).
- University Senate Distance Learning and e-Learning Committee, (August 15, 2015 Present).
- University Senate Ad-Hoc Committee on Student Engagement, (February 12, 2019 September 30, 2019).
- University CIO's Teaching and Learning Enablement Task Force, (January 2017 December 2017).

# **Committee Member**

Distance Learning Task Force on Best Practices for Assessing Fully Online Programs, (January 15, 2020 - Present).

University Senate Ad-Hoc Calendar Committee, (October 7, 2019 - Present).

- University Senate Technology Committee, (February 12, 2018 Present).
- University Senate Rules and Elections Committee, (August 15, 2014 Present).
- University Senate Distance Learning and e-Learning Committee, (August 15, 2012 Present).
- Provost Outstanding Teacher Awards Selection Committee, (March 11, 2019).
- University Senate ad-hoc Technology Committee, (August 15, 2016 February 11, 2018).
- University "Empowering Transformation" IT Strategic Planning Committee, (January 2017 December 2017).

University Senate Counselor, (January 1, 2014 - December 31, 2016).

University Senate ad-hoc TCE Implementation Committee, (August 15, 2015 - May 15, 2016). Faculty Advisor

UK Board of Trustees, invited by President Eli Capilouto to participate in full-day board retreat on the recommendation that I "would be able to provide the Board with a thoughtful perspective on the issues facing the University", (October 17, 2019).

#### Guest Speaker, Internal

- "Celebrating Online Faculty Success." One of three invited speakers for National Distance Learning Week presentation, CELT, (2017).
- CELT "Innovation + Design Lab" Discussion Panel, (2016).

#### **Invited Participant**

UK Board of Trustees, Discussion about "the rapidly changing economic, political, demographic, and technological landscape facing higher education in general and the University of Kentucky in particular.", (October 19, 2017).

### **University Senator**

University Senate, (August 15, 2018 - Present).

University Senate, (August 15, 2013 - December 31, 2016).

# **Professional Service**

## **Committee Member**

Curiosity Fair, (October 29, 2019).

Curiosity Matters Event, (November 6, 2018). Reviewer, Ad Hoc Reviewer

USDA NIFA (SBIR) Program, (March 1, 2019). Reviewer, Grant Proposal

USDA NIFA (Multicultural Scholars) Grant Review Panel, (October 6, 2020 - October 8, 2020).

USDA NIFA (REEU) Grant Program, (August 21, 2018 - August 23, 2018). Reviewer, Journal Article

Applied Economics Teaching Resources Journal, (2019).

# **Public Service**

## **Board Member**

Life Adventure Center (Versailles, KY), (January 2013 - Present). Chairperson

Life Adventure Center (Versailles, KY), (January 2016 - December 2019).

# **Media Contributions**

# Magazine

"Ag Magazine." (October 2017). "Spotlight: Roger Brown" with interview about teaching and receipt of the Outstanding University Senator Award. KY, United States.

# **Professional Development**

#### **Professional Memberships**

Agricultural & Applied Economics Association (AAEA). National. (2018 - Present).

North American Colleges and Teachers of Agriculture. International. (2014 - Present).

Gamma Sigma Delta. (2003 - Present).

### **Development Activities Attended**

#### Workshop

- Mental Health First Aid. (May 8, 2019 May 9, 2019). UK Counseling Center. Lexington. An eight hour curriculum on (1) recognizing signs and symptoms of mental health concerns such as depression, anxiety, suicide, psychosis, and substance abuse, and (2) how to assist persons with these concerns.
- Applying the Quality Matters Rubric. (2016). Quality Matters. University. Lexington, KY, United States.

This was an all-day training (8 hours). Quality Matters is the current international standard for designing online courses.

### **Awards and Honors**

- *Teacher Who Made a Difference*, University of Kentucky, College of Education. Teaching, Nomination by student(s), College. (April 21, 2018).
- *Provost's Outstanding Teaching Award*, University of Kentucky. Teaching, Provost Award for Outstanding Teaching, University. (April 19, 2018).
- *Educator Award*, North American Colleges and Teachers of Agriculture. Teaching, International. (2017).
- *Ken Freedman Outstanding Advisor Award (nomination),* University of Kentucky, Provost's Office. Advising, University. (2017).
- *Outstanding University Senator Award*, University of Kentucky, University Senate. Service, University, University. (2017).
- *Ken Freedman Outstanding Advisor Award (nomination),* University of Kentucky, Provost's Office. Advising, University. (2016).
- *Master Teacher Award*, University of Kentucky, College of Agriculture. Teaching, Recognition Award, College. (2016).

# Dr. Fernanda C. Camargo

College of Agriculture, Food and Environment Department of Animal Science

# Education

PHD, University Of Kentucky, 2007. Major: Veterinary Sciences/Veterinary Clinical Sciences, General (Cert, MS, PhD)

DVM, Londrina State University, Brazil, 2000. Major: Veterinary Medicine (DVM)

# **Research and Scholarship**

# **Intellectual Contributions**

\* = Senior Author ~ = Corresponding Author + = Grad/Prof Student # = Post Doc ^ = Undergraduate WOS = Web of Science JIF = Journal Impact Factor TC = Journal Total Cites

SNIP = Source Normalize Impact per Paper SJR = Scimago Journal Rank

#### Published

#### Journal Article, Academic Journal

- + Scare, J. A., + Steuer, A. E., Gravatte, H. S., + Kalman, C., + Ramires, L. M., + Dias de Castro, L. L.,
  + Norris, J. K., ^ Miller, F., \* + Camargo, F. C., Lawyer, K. A., de Pedro, P., Jolly, B., \* Nielsen,
  M. K. (2018). Management practices associated with strongylid parasite prevalence on horse farms in rural counties of Kentucky, *VETERINARY PARASITOLOGY: REGIONAL STUDIES AND REPORTS*, 14, 25-31. doi: 10.1016/j.vprsr.2018.08.002
  JIF: 0.70
- Camargo, F. C., Gombeski, W. R., Barger, P., Jehlik, C., Wiemers, H., Mead, J., Lawyer, A. (2018). Horse-related injuries: Causes, preventability, and where educational efforts should be focused, *Cogent Food & Agriculture*, 4(1). doi: 10.1080/23311932.2018.1432168
- Gombeski, W. R., \* Camargo, F. C., Wiemers, H., Jehlik, C., Barger, P. H., Mead, J. (2017). Preventing horse-related injuries by watching out for other humans, *Journal of Outdoor Recreation and Tourism*, 19, 11-16. doi: 10.1016/j.jort.2017.05.003

#### Software

Camargo, F. C. (2017). Saddle Up Safely Mobile App - Concussion Assessment (type Saddle Up Safely in the App Store or Google Play).

#### Accepted

#### **Journal Article**

Camargo, F. C., Lawyer, K. A., Higgins, J., Gombeski Jr, W. Date Accepted: (November, 2020). An Analysis of Horse-Related Injuries at the University of Kentucky Chandler Hospital From 2010-2017. Journal of Outdoor Recreation and Tourism.

# **Presentations Given**

### **Invited Speaker**

- Camargo F. C., (October 2019). How to Recruit Youth into the Horse Industry Mini International Forum on Equine Education and Careers, Hosted by Godolphin, Jonabell, Other / Multiple Countries. Invited, International.
- Camargo F. C., (October 2019). Feeding your Makeover Horse Retired Racehorse Project, Thoroughbred Makeover. Invited, National.
- Camargo F. C., (October 2019). Assessing the Body Condition Score of Horses and Tips to Help a Horse Lose or Gain Weight United Stated Hunter Jumper Association. Invited, National.
- Camargo F. C., (August 2019). Safety Around Horses, Child Agricultural Injury Prevention Workshop National's Children Center for Rural and Agricultural Health and Safety. National.
- Camargo F. C., (July 2019). Horse Industry Safety Summit Recap Equine Forum, University of Kentucky. Invited, Local.
- Camargo F. C., (February 2019). Assessing the Body Condition Score of Horses and Tips to Help a Horse Lose or Gain Weight Bluegrass Stockyards Educational Day. Invited, State.
- Camargo F. C., (February 2019). Managing Your Makeover Horse Kentucky Equine Network Association. Invited, State.
- Camargo F. C., (April 2018). An Overview of Horse Safety and Horse Related Accidents at UKHealthCare Chandler Hospital Everything is Science, UK College of Pharmacy, Lexington, KY, United States. Invited, National.
- Camargo F. C., (March 2018). An Overview of Horse Safety and Horse Related Injuries 2018 Kentucky Horse Council Recreational Rider Day, Kentucky Horse Council, Louisville, KY, United States. Invited, State.
- Camargo F. C., (January 2018). An Overview of Horse Safety and Horse Related Injuries 2018 The United States Pony Clubs Annual Symposium, The United States Pony Clubs, Louisville, KY, United States. Invited, National.
- Camargo F. C., (January 2018). Prevention of Horse-Related Injuries and Concussion Assessment: Where Education Efforts Should Be Focused 2018 UK Equine Showcase, UK Ag Equine Programs, Lexington, KY, United States. Invited, National.

Camargo F. C., (February 2017). Trailer Safety

This was presented at Boyd County and Jefferson County events in 2017 2017 Kentucky Horse Council Recreational Rider Day, Kentucky Horse Council, Louisville and Boyd County, KY, United States. Invited, State.

## **Podium Session**

- Scare J. A., Steuer A. E., Gravatte H. S., Kalman C., Ramires L. M., de Castro L. D., Norris J. K., Miller F., Camargo F. C., Lawyer K. A., de Pedro P., Jolly B., Nielsen M. K., (July 15, 2018). Back to the future in Amish and rural communities: Equine parasite control and prevalence American Association of Veterinary Parasitologists, 63rd Annual Meeting, AAVP, Denver, CO, United States. Accepted, National.
- Camargo F. C., (April 2018). An Overview of Horse Safety and Horse Related Injuries 2018 American Youth Horse Council Annual Symposium, American Youth Horse Council, Oklahoma City, OK, United States. Accepted, National.

### **Poster Session**

- Camargo F. C., (July 2018). An Analysis of Horse Related Injuries 2018 American Society of Animal Science Annual Symposium, American Society of Animal Science, Vancouver, Canada. Accepted, International.
- Camargo F. C., (October 2016). Saddle Up Safely Guidelines for Return to Horse-Related Activities After Concussion 5th International Conference on Concussion in Sports, Berlin 2016, Sports Related Concussion Group, Berlin, Germany. Accepted, International.

# Extension

# **Extension Publications & Media**

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* = Senior Author ~ = Corresponding Author + = Grad/Prof Student # = Post Doc ^ = Undergraduate
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#### Published

Peer-Reviewed

**Extension Publication- Numbered, Original Content** 

- Adams, A. A., Camargo, F. C. (2018). ID-252- Equine Cushing's Disease or PPID Lexington, KY, University of Kentucky Agricultural Communications Service, 3.
- Camargo, F. C. (2018). ASC-240- Blanketing Horses: Do's and Don'ts Lexington, KY, University of Kentucky Agricultural Communications Service, 5.
- Camargo, F. C. (2018). ASC-239- Warm Up Ring Etiquette Lexington, KY, University of Kentucky Agricultural Communications Service, 2.

- \* Camargo, F. C. (2016). ASC-226- Help! My Horse Roars! What Is Laryngeal Hemiplegia? Lexington, KY, University of Kentucky Agricultural Communications Service, 4.
- \* Camargo, F. C. (2016). ID-239- Equine Metabolic Syndrome: Is My Horse Just Fat, or Is He Sick? Lexington, KY, University of Kentucky Agricultural Communications Service, 3.

#### **Extension Publication- Numbered, Revised Content**

- Coleman, R. J., Henning, J. C., Camargo, F. C. (2020). ID-196- UK Ag Equine Programs Calendar, 2021 Lexington, KY, University of Kentucky Agricultural Communications Service, 32.
- Coleman, R. J., Henning, J. C., Camargo, F. C. (2019). ID-196- UK Ag Equine Programs Calendar, 2020 Lexington, KY, University of Kentucky Agricultural Communications Service, 32.
- Coleman, R. J., Henning, J. C., Camargo, F. C. (2018). ID-196- UK Ag Equine Programs Calendar, 2019 Lexington, KY, University of Kentucky Agricultural Communications Service, 32.
- Camargo, F. C. (2017). ID-196- UK Ag Equine Equine Programs Calendar, 2018 Lexington, KY, University of Kentucky Agricultural Communications Service, 32.

#### Webpage

Camargo, F. C. (2017). Horse Discovery Webpage.

#### Non Peer-Reviewed

#### Magazine/Trade Publication

- Camargo, F. C., Lawrence, L. M., Coleman, R. J. (2019). Body Condition Scoring Horses: Step by Step, *The Horse Magazine*.
- Camargo, F. C., Lawrence, L. M., Coleman, R. J. (2019). My Horse is Skinny. What Should I do?, *The Horse Magazine*.
- Camargo, F. C., Lawrence, L. M., Coleman, R. J. (2019). My Horse is too Fat. What should I do?, *The Horse Magazine*.

#### Video

Camargo, F. C. (2020). Equine Welfare in 4-H Horse Programs.

Camargo, F. C. (2020). Ethics in Equine Programs.

Camargo, F. C. (2020). Going to Equestrian College: Choosing the Right One for You.

Camargo, F. C. (2020). Assessing Body Condition Scoring in Horses.

Camargo, F. C. (2020). Caring for the Aging Horse.

- Camargo, F. C. (2020). First Aid for Horses.
- Camargo, F. C. (2020). How to Care for your Makeover Horse.
- Camargo, F. C. (2020). How to Chair a Committee.
- Camargo, F. C. (2020). The Anatomy of Riding.
- Camargo, F. C. (2020). Intro to the GI Tract in Horses.
- Camargo, F. C. (2020). Intro to the Nervous System in Horses.
- Camargo, F. C. (2020). Neurologic Diseases in Horses: EEE, WEE, VEE, WNV.
- Camargo, F. C. (2020). Potomac Horse Fever.
- Camargo, F. C. (2020). Rabies in Horses.
- Camargo, F. C. (2020). Rotavirus in Foals.
- Camargo, F. C. (2020). Salmonella in Horses.
- Camargo, F. C. (2020). Skin Disorder in Horses.
- Camargo, F. C. (2020). Botulism in Horses.
- Camargo, F. C. (2020). Lawsonia intracellularis in Horses.
- Camargo, F. C. (2020). Equine Herpesvirus Type 1 and Type 4.
- Camargo, F. C. (2020). Intro to the Equine Respiratory System.
- Camargo, F. C. (2020). Strangles in Horses.
- Camargo, F. C. (2020). Wound Management in Horses.
- Camargo, F. C. (2020). Colic in Horses (Part 1): Gastric Ulcers.
- Camargo, F. C. (2020). Colic in Horses (Part 2): Medical and Surgical Types.
- Camargo, F. C. (2020). Disease and Healing in Horses (Part 1): Adaptation.
- Camargo, F. C. (2020). Disease and Healing in Horses (Part 2): Inflammatory Response.
- Camargo, F. C. (2020). Endotoxemia in Horses.

Camargo, F. C. (2020). Equine Asthma.

Camargo, F. C. (2020). Equine Influenza.

Camargo, F. C. (2020). Intro to the Immune System in Horses (Part 1).

Camargo, F. C. (2020). Intro to the Immune System in Horses (Part 2).

Camargo, F. C. (2020). Non-Steroidal Anti-Inflammatory Drugs and their Use in Horses.

Camargo, F. C. (2020). Steroidal Anti-Inflammatory Drugs and Their Use in Horses.

Camargo, F. C. (2020). Tetanus in Horses.

Camargo, F. C. (2020). Antimicrobials (Antibiotics) and their Use in Horses.

Camargo, F. C. (2020). Equine Infectious Anemia.

Camargo, F. C. (2020). Vaccination Guidelines in Horses.

# **Extension Education & Training Programs**

**Other**. Kentucky 4-H Horse Program. (September 2007 - Present). Scope: State. Counties: 120. General public.

Description: I oversee, coordinate and provide leadership for the 4-H Horse Program in Kentucky. I provide learning opportunities for the youth through camps, clinics, seminars, the State Horse Show, the State Horse Contest, and the State Horse Judging Contest. My role is to ensure the quality of the program content, facilitating communication among leaders, agents and parents, serving as liaison with the sites where the events are held, monitoring budget issues, and ensuring that the rules are clear. Approximately 200 youth participate in the State Contest, 120 youth participate in the State Judging Contest, and about 500 youth and horses participate in the State Show.

### **County Agent In-Service Training**

**Program organizer**. Horse Academy for New Agents and Those Unfamiliar with Horses. (August 2018 - Present). Scope: State. County agents/ specialists.

Description: This is a newly developed in-service program for new county agents and for those agents unfamiliar with horses. We plan to provide this 2 or 3 times a year. The first one happened on October 4, 2018. The next one is scheduled for February 2019. We go over breeds, disciplines, husbandry, welfare, nutrition, cost of ownership, ethics, the Kentucky 4-H Horse Program, and unconscious bias.

#### Farm Visit or Consultation

**Program organizer**. Equine Wellness Clinic. (December 2016 - Present). Scope: Multi-county. Participants: 150 Interest group members.

Description: Kentucky 4-H Horse Program

The Equine Wellness Clinic was developed to provide horse care to low-income families from Eastern Kentucky, and the Amish Community of Hardin County. We served over 200 horses in 2017 between 4 counties.

During the 2017 program, we collected feces, performed fecal egg count (Dr. Martin Nielsen's lab), checked teeth, vaccinated, and made general health and deworming recommendations.

We changed the scope of the program for 2018 and onwards to serve only the Amish Community in Hardin County. We served over 120 horses in 2018.

Our goal for this program is to teach about best practices, nutrition, husbandry, and deworming and vaccination protocols.

#### Multi-modal Program (describe in description box)

**Program organizer**. Horse Academy for Chinese Students. (July 2017 - Present). Scope: International. Participants: 25 University students.

Description: UK Office of China Initiatives. This program was developed to introduce the horse industry in Kentucky and The United States to Chinese Students, and to recruit these students to come to UK to either finish their undergraduate education or for Graduate studies. The students are recruited from various universities in China that already have an affiliation with UK (done via the Office for China Initiatives).

The program consists of 12 days, which students have classroom equine education for 10 mornings, and various tours of equine organizations in Kentucky for 6 afternoons, and horseback riding lessons for 6 afternoons.

The program was offered 2 times in 2018, and highly successful both times. Some of the students started taking riding lessons in their hometown in China.

# *Session chair*. Horse Track of Kentucky 4-H Volunteer Forum. (September 2007 - Present). Scope: State. Participants: 50 Interest group members.

Description: Kentucky State 4-H. This is a bi-annual event that provides leadership and content matter materials to 4-H Volunteer Leaders across Kentucky. I organize the Horse session, which includes presenting a seminar, and inviting speakers and organizing sessions for another 9-10 seminars and workshops.

This event happens in January of even years.

## **Other Extension Presentation**

*Task force chair*. Horse Bahaviour & Safety Online Course. (February 2017 - Present). Scope: International. Interest group members.

Description: This online course was developed in collaboration with Equine Guelph -

University of Guelph and Saddle Up Safely

This course is administered by Equine Guelph. I helped provide content in the form of videos, subject matter, and quizzes.

We developed a Youth and an Adult version. This course has been made available 3 times since when it first rolled out in April 2017.

https://thehorseportal.ca/partner/sus/

#### Seminar

**Program organizer**. Horse Hoof Mechanics. (January 2018). Scope: International. Participants: 85 Interest group members.

Description: Dr. John and Monique Craig are engineers, horse owners, Monique is a farrier, and they have developed a special horse shoe that more closely resembles the characteristics of a hoof. They teach at California Polytechnic State University, and have been invited speakers in my class and I have invited them to present to horse enthusiasts, 4-H leaders and youth, UK students, as well as KEMI, Midway, Asbury, Georgetown, etc. The 2018 program had John and Monique Craig as speakers, and Mark Aiken, a british farrier.

**Program organizer**. Horse Hoof Mechanics. (January 2017). Scope: National. Participants: 115 Interest group members.

Description: Dr. John and Monique Craig are engineers, horse owners, Monique is a farrier, and they have developed a special horse shoe that more closely resembles the characteristics of a hoof. They teach at California Polytechnic State University, and have been invited speakers in my class and I have invited them to present to horse enthusiasts, 4-H leaders and youth, UK students, as well as KEMI, Midway, Asbury, Georgetown, etc. I have hosted this annual seminar for 3 years. The 2017 event had John and Monique Craig as presenters.

#### Workshop

**Session chair**. Horse Academy of Kentucky 4-H Teen Conference. (September 2017 - Present). Scope: State. Participants: 15 Interest group members.

Description: Kentucky State 4-H. I develop and present horse science materials in a workshop format, which included classroom and hands on activities to 15 teenage leaders that come to UK for the Teen Conference. This is an annual conference, and I plan to continue to present at.

In the past, I hadn't been able to present at Teen Conference because the State Horse Contests had historically been scheduled for the same week. However, starting in 2018, I moved the contests to enable kids to attend both events.

*Task force chair*. Tex Cauthen Memorial Seminar. (January 2016 - Present). Scope: National. Participants: 125 Industry professionals.

Description: This is an annual farrier and podiatry seminar. My role is to advertise and market it to UK students (as well as KEMI, Asbury, Midway, Georgetown), and 4-H leaders, agents, and farriers.

- Committee chair. Horse Volunteer Leader Certification. (August 2009 Present). Scope: State. Participants: 400 Interest group members.
   Description: Kentucky State 4-H. I provide leadership for this program, which was implemented in the Fall of 2010 to train club volunteer leaders on youth development. It is held together with the Livestock Volunteer Certification Program. To date there have been 18 horse certification workshops, and over 400 certified leaders. We held 2 workshops in the last quarter of 2016, 2 in 2017, and will have 2 in 2018.
- Committee chair. District Horse Contact Agents Training. (September 2007 Present). Scope: State. Counties: 120. Participants: 14 County agents/ specialists.
   Description: Kentucky 4-H Horse Program. This is a training for the District Horse Contact Agents that I provide annually to go over rules and procedures of the Kentucky 4-H Horse Program. We generally meet face to face 1 day for 7 hours, and via email or phone conversation multiple times a year.
- Program organizer. International Society of Rider Biomechanics Symposium. (2013 October 2017). Scope: International. Participants: 45 Industry professionals.
   Description: This is an international training for riding instructors, riders, coaches and trainers. This was an annual event, and I have hosted and/or spoken at for multiple years, but the symposium has become bi-annual after the chair of the organization stepped down.

# **Program and Curriculum Development**

# 2018

Program/Curriculum Name - Horse Academy - Level 1-5, to replace the 4-H Horse Achievement Levels

Description: I met with horse-savvy county agents and leaders and we dissected the current 4-H Achievement Levels and compared to National 4-H Horse Curriculum and other states, and we revamped the curriculum, expectations, resources, and overall look of the books. We currently have Levels 1 and 2 ready, and are working on 3-5.

# **Extension Related Consulting**

Business and Industry, Horse owners with questions including, but not limited to horse health, feeding, husbandry, deworming and vaccination protocols., United States. (September 2007 - Present).

Description: 1/ Horse Vet Corner: social media page where owners post a horse-related question and veterinarians answer for educational purposes.

2/ Phone calls and emails from horse owners across the state of Kentucky and other states, which include 4-H leaders, parents, county agents, other state specialists, etc.

Questions generally relate to how to put weight on horses, take weight off, tack and

equipment, daily care and management, welfare, diseases, body condition scoring, etc. I spend approximately 20 hours a week answering emails and phone calls.

Business and Industry, Atlee Miller, Elizabethtown, KY, United States. (April 2017 - September 2017).

Description: Atlee is one of the Amish farmers from Hardin County. He has great interest in Equine Health and we have made a big impact in that community regarding vaccination and the prevention of diseases. He had a horse with strangles and reached out to me via Bonnie Jolly to develop a biosecurity protocol to disinfect his barn and prevent his other horses from developing strangles. He has reached to me multiple times when he has any concern about his horses.

# **Professional Service**

#### **Board of Directors of a Company**

Appalachian Horse Project, (2018 - Present).

Saddle Up Safely, (2009 - Present).

Eastern National 4-H Horse Roundup, (2007 - Present).

#### Chairperson

Saddle Up Safely, (2016 - Present).

Kentucky 4-H Horse Program, (September 2007 - Present).

Eastern National 4-H Horse Roundup, (2015 - 2016).

# **Committee Member**

Southern Regional 4-H Horse Championships, (2007 - Present).

#### **Extension Media Summary**

Type of Media	Dates	Faculty	Description	Evidence of Reach
		Member's Role		
Social Media	May 2016	Editor/Co-Editor	Saddle up Safely Facebook	
	- Present		page and YouTube Chanel.	
			https://www.facebook.com/	
			SaddleUpSafely/	
			https://www.youtube.com/c	
			hannel/UCovLqvVE22GFsV_A	
			L7Cm16w?view_as=subscribe	
			r	

Social Media	January	Editor/Co-Editor	Facebook page for the	Thousands.
	2011 -		Kentucky 4-H Horse Program	Each post has
	Present		https://www.facebook.com/	between
			Kentucky-4-H-Horse-Program	200-2,000 views.
			YouTube	We have 2,147
			chanel:https://www.youtube	people that follow
			.com/channel/UCovLqvVE22	our Facebook
			GFsV_AL7Cm16w?view_as=s	page.
			ubscriber	

# **Media Contributions**

#### Internet

"Equithrive Podcast - Horse Industry Safety Summit, invited speaker." (April 2019).

## Magazine

"The Horse Magazine - Bringing Your Horse Home." (September 2020).

"The Horse Magazine - Helmet Safety Considerations." (November 2019).

"The Horse Magazine - Helmets: How to measure for proper fit." (November 2019).

"The Horse Magazine - UK Hosts Inaugural Horse Industry Safety Summit." (May 2019).

"The Horse Magazine - Horse Industry Safety Summit to Promote Education." (February 2019).

"Horse Illustrated - Blanket Statements." (September 2018). I contributed to the article.

"Equine Journal - Finding Hidden Hazards in the Barn." (May 2018). I contributed to the article., United States.

"Heels Down Magazine - Respiratory Allergies, When The Breathing Ain't Easy." (April 2018). I contributed to the article.

"Heels Down Magazine - Skin Allergies – Keep The Itch Away." (April 2018). I contributed to the article.

# Other

"Videos:

Safe Blanketing

Safe: English Tack Check

Safe: Turning Horses Out

Safe: Horse-related Concussions

Safe: Tying

How to put on halter, rope halter, and bridle

Safe: Fitting a leather halter." (May 2017). I developed and directed the series of safety videos on the Kentucky 4-H YouTube Chanel.

We are planning to shoot more videos on October 23, 2018.

# Teaching

# Teaching

Prefix Number - Section	Credit Hours	# Enrolled	Code Term Year
EQM 351 - 001	3.00000 - 3.00000	29	10 Fall 2020-2021
EQM 351 - 010	3.00000 - 3.00000	8	50 Summer 2019-2020
EQM 351 - 001	3.00000 - 3.00000	58	30 Spring 2019-2020
EQM 396 - 701	3.00000 - 3.00000	12	30 Spring 2019-2020
EQM 351 - 001	3.00000 - 3.00000	45	30 Spring 2018-2019
EQM 351 - 001	3.00000 - 3.00000	35	10 Fall 2018-2019
EQM 351 - 001	3.00000 - 3.00000	45	30 Spring 2017-2018
EQM 351 - 001	3.00000 - 3.00000	25	10 Fall 2017-2018
EQM 351 - 001	3.00000 - 3.00000	45	30 Spring 2016-2017
ASC 395 - 005	1.00000 - 4.00000	1	10 Fall 2016-2017
EQM 351 - 001	3.00000 - 3.00000	60	30 Spring 2015-2016

# **Teacher Course Evaluations**

Prefix Number - Section	Responses	TCE Course Quality Mean	TCE Teaching Quality Mean	Code Term Year
EQM 351 - 001	8	4.38	4.38	10 Fall 2020-2021
EQM 351 - 001	22	4.50	4.59	30 Spring 2019-2020
EQM 351 - 001	20	4.45	4.70	30 Spring 2018-2019
EQM 351 - 001	10	4.50	4.10	10 Fall 2018-2019
EQM 351 - 001	23	4.61	4.70	30 Spring 2017-2018
EQM 351 - 001	12	4.25	4.58	10 Fall 2017-2018
EQM 351 - 001	24	4.67	4.65	30 Spring 2016-2017
EQM 351 - 001	19	3.32	3.53	30 Spring 2015-2016

Note: With regards to Spring 2020 TCEs please consider the following from page 121 of the UK Playbook for Fall 2020, "It is essential that performance evaluation take into account the extenuating circumstances brought about by the disruption for faculty in all title series and the extraordinary work

accomplished by faculty in response to the disruption. Academic leaders shall reiterate that TCEs should be but one indicator of effective teaching in both periodic merit reviews and tenure/promotion decisions. Evaluation of teaching must go beyond student evaluations alone."

## **Theses and Dissertations**

#### **Master's Thesis Committee Member**

Samatha Strouss, Animal Sciences, Status: Completed. (June 2016 - September 2018).

Karin Pekarchik, Community and Leadership Development, Status: Completed. (August 2015 - August 2017).

#### **Outside examiner**

Fernanda Bicudo-Cesar, Veterinary Science, Status: Completed. (April 2018 - June 2018).

# Mehdi Nemati, Agricultural Economics, Status: Completed. (April 2018 - June 2018). Directed Student Learning (excluding theses, dissertations)

Ashley Mattingly. Internship Advisor. *Kentucky 4-H Horse Program*. Completed (May 2018 - August 2018).

Description: Ashley is an Equine Science and Management student, and worked under me as an intern during the 2018 summer 4-H events.

Jamie Henley. Internship Advisor. *Kentucky 4-H Horse Program*. Completed (May 2018 - August 2018).

Description: Jamie is a graduate of the 4-H Horse Program and worked under me as an intern during the 2018 summer events. She is an Ag Econ student.

Sophie Dorsch. Internship Advisor. *Kentucky 4-H Horse Program*. Completed (May 2017 - August 2017).

Description: Sophie is a graduate from the Equine Science and Management degree, and was, at the time, a graduate student under Dr. Urschel. Sophie is highly interested in pursuing a career with Cooperative Extension, and, therefore, interned under me to get a hands-on experience.

# Academic Advising

Fall 2018-2019, 22 undergraduate students advised, Discuss current class load, plan for the following semester class load, discuss career options, ways to improve studying habits, ways to combine college with social life and still have a successful student career, internship placing, etc.
Many of my students are pre-professional, and most of them have been successfully accepted into vet school, or other professional schools.

Spring 2017-2018, 20 undergraduate students advised, Discuss current class load, plan for the following semester class load, discuss career options, ways to improve studying habits, ways to combine college with social life and still have a successful student career, internship placing, etc.
 Many of my students are pre-professional, and most of them have been successfully accepted into

vet school, or other professional schools.

Fall 2017-2018, 25 undergraduate students advised, Discuss current class load, plan for the following semester class load, discuss career options, ways to improve studying habits, ways to combine college with social life and still have a successful student career, internship placing, etc.
Many of my students are pre-professional, and most of them have been successfully accepted into vet school, or other professional schools.

Spring 2016-2017, 25 undergraduate students advised, Discuss current class load, plan for the following semester class load, discuss career options, ways to improve studying habits, ways to combine college with social life and still have a successful student career, internship placing, etc.
 Many of my students are pre-professional, and most of them have been successfully accepted into vet school, or other professional schools.

# **Other Credit and Non-Credit Instructional Activities**

# **Guest Lecture**

French Students Exchange Program with Dijon, Participants: Graduate Students, 10, (May 2018) Description: An Overview of Horse Safety and Horse Related Injuries

French Students Exchange Program with Dijon, Participants: Graduate Students, 10, (May 2017) Description: An Overview of Horse Safety and Horse Related Injuries

# Service

# **Department Service**

# **Committee Member**

Animal and Food Sciences - Social Committee, (July 2011 - Present).

Animal and Food Sciences - Hall of Fame Committee, (2016 - 2018).

# **College Service**

Ag Equine Programs Extension Summit, (2018 - 2019). Committee Member

Ag Equine Programs Extension and Teaching Committees, (May 2018 - Present).

Ag Equine Programs Booth, (September 2007 - Present).

Equine Science and Management Curriculum Committee, (August 2015 - August 2018).

Ag Equine Programs Council, (May 2015 - May 2018).

2017 Equine Summit "Developing Tomorrow's Equine Workforce", (August 2016 - April 2017). Faculty Advisor

FFA Field Day Community and Leadership Development, (January 1, 2014 - Present).

# **University Service**

## **Committee Member**

Latin American, Caribbean & Latino Studies - College of Arts and Sciences, (January 2017 - Present).

# **Professional Service**

## Chairperson

Horse Industry Safety Summit, Horse Industry Safety Summit, (July 2018 - Present). Committee Chair

American Society of Animal Science - Equine Symposium, Equine Symposium Chair, (July 2014 - July 2017).

# **Committee Member**

- University of Kentucky Jockey & Equestrian Initiative, University of Kentucky Jockey & Equestrian Initiative, (June 2018 Present).
- Female Equestrian Health Community of Practice, Female Equestrian Health Community of Practice, (May 2018 Present).

Kentucky Equine Network Association, (2015 - Present).

Kentucky Horse Council, (2011 - Present).

# **Reviewer**, Book

Princeton University Press, (October 5, 2018 - October 21, 2018).

# **Reviewer, Journal Article**

- Journal of Outdoor Recreation and Tourism, Prevalence and impact of bumps, bruises, and other painful incidents among children while handling and riding horses, (October 1, 2018 October 22, 2018).
- BMJ Open Sport & Exercise Medicine, Effects of body protection vests and experience levels in prevention of equestrian injuries, (August 2018 September 2018).
- Cogent Food & Agriculture, RATES AND CAUSES OF ELIMINATION IN MALAYSIAN ENDURANCE HORSES, (October 2017 February 2018).

Journal of Chromatography B, Direct detection of glucuronide metabolites of lidocaine in sheep urine, (November 2017 - January 2018).

# **Professional Development**

#### **Professional Memberships**

American Association of Equine Practitioners. International. (January 2012 - Present).

American Society of Animal Sciences. (2008 - Present).

Kentucky Horse Council. (2008 - Present).

#### **Development Activities Attended**

#### **Conference Attendance**

Horse Industry Safety Summit. (April 2019). University of Kentucky. International. LEXINGTON, KY, United States.

I was the chair of the organizing committee.

The Horse Industry Safety Summit, hosted by The University of Kentucky, featured researchers, equestrians, and equine enthusiasts in a format that combined expert panels, individual speakers, and poster presentations. The day focused solely on ways to keep equine riders and handlers safe.

The presentations were a mix of scientific discoveries as well as practical tips. Sessions included:

A welcome address by Hall of Fame jockey Chris McCarron;

How helmets protect riders' heads by Stephanie Bonin, PhD, PE, and senior biomechanical engineer with MEA Forensic Engineers and Scientists;

The role of nutrition and fitness in rider safety and performance by Daniel Stewart, Pressure Proof Coaching Academy;

Concussion baseline testing and return to ride protocol by Carl Mattacola, PhD, ATC, FNATA, former director of the Jockey Equestrian Initiative and professor and associate dean of academic and faculty affairs in the UK College of Health Sciences;

Life-changing aspects of a traumatic brain injury by Mindy Coleman, counsel for the Jockey's Guild, Inc.;

The importance of protective vests by Sarah Andres, PhD, safety committee chair for the U.S. Pony Club;

Learn to fall by Danny and Keli Warrington of Landsafe Equestrian;

Analysis of jockey injury reporting at Maryland Thoroughbred racetracks by Gabrielle Garruppo, a researcher from MedStar's Maryland Horsemen's Health;

A multidisciplinary approach to post-concussion care for equestrians by Lisa Harris, a physical therapist at Cardinal Hill Rehabilitation Hospital;

Effective online equine behavior and safety education for members of the equine industry by Gayle Ecker, MS, director of Equine Guelph;

An equestrian perspective safety panel, moderated by Jen Roytz, of the Retired Racehorse

Project, and featuring Day; Richard Picken, show jumping coach; Jane Beshear, former First Lady of the Commonwealth of Kentucky and avid amateur rider; and Eric Hamelback, former farm manager;

An organizational perspective safety panel, moderated by Dan Fick, of the Racing Officials Accreditation Program, featuring Coleman; Hamelback; Sonja Keating, United States Equestrian Federation; Carol Kozlowski, United States Eventing Association; Vince Gabbert, Keeneland; and Steve Koch, National Thoroughbred Racing Association.

American Society of Animal Science Annual Conference. (July 2018). ASAS. International. Vancouver, Canada.

Animal Science Scientific Conference

American Youth Horse Council Annual Symposium. (April 2018). AYHC. National. Oklahoma, OK, United States.

Conference aimed at training/developing equine industry professionals and leaders in youth development.

American Society of Animal Sciences Annual Conference. (July 2017). ASAS. International.Baltimore, MD, United States.Animal Science Scientific Conference.

2017 Equine Summit "Developing Tomorrow's Equine Workforce". (April 26, 2017). UK Ag Equine Programs. International. Lexington, KY, United States.In this summit we learned what the industry is looking for when hiring equine degree graduates.

# Sabbatical

Learning Math the Horse Way. (July 2019 - December 2019).

I took a sabbatical starting on July 8, 2019 until December 24, 2019. I used this time to develop a STEM lesson plan to teach math to 4th grade students, using the horse as a model. The goals were 1/ to introduce horses to a group of kids that might otherwise not have a chance to learn about them, 2/ to spread a message of good will regarding agriculture in general, 3/ to exalt Kentucky's flagship industry, and 4/ to recruit youth to join the 4-H Horse Program or other 4-H Programs in Kentucky.

In July and August, I contacted all 4-H Youth Development County Agents, and asked to be put in contact with the school teachers and schools they usually work with. In addition, I contacted all principals and 4th grade teachers for Fayette County's Public Schools directly, and spent the remainder of that time developing the lesson plan (with the help of Dr. Rebekah Epps, some horse industry professionals, as well as other UK colleagues), building the materials that go with it, and explaining the concept to teachers.

The lesson plan consisted of teaching students about many aspects of agriculture, teaching

about Secretariat and horses in general, measuring Secretariat's stride length and comparing that to each of the student's own stride length at the walk and jog, applying multiplication, division, and fraction, and, finally, learning about other ways we use math in agriculture. The lesson plan is easy to be replicated, and I have offered to share it with county agents.

From September to the end of school semester in December, I taught the lesson plan to 934 4th grade students, in 31 classrooms, in 9 counties. The students and teachers really enjoyed the lesson. They were, obviously, in awe of the magnificence of Secretariat, were eager to learn more about horses, and were really engaged with the hands-on activities I had for them. Some teachers have requested that we offer this lesson every year, and other teachers asked for a "part 2" lesson for the Spring semester.

From my perspective, this was an eye-opening experience, to see the difference in knowledge levels between schools/counties, as well as between different classrooms in the same school. This gave me some perspective about our 4-H Horse program youth, as well as our college students. As a follow-up, I, together with a few local farms and industry professionals, am planning a Central Kentucky Horse Farm experience in May, for some of the participating schools, as an educational field trip.

#### Workshop

University of Kentucky Ag Equine Programs - UK Equine Showcase. (2012 - Present). University of Kentucky. National. LEXINGTON, KY, United States.
 This is an annual event that I attend each year. Multiple equine-related research presentations each year.

Equine Guided Leadership Education. (May 7, 2017). Kentucky 4-H Horse Program. State. LEXINGTON, KY, United States. Leadership training using the horse

Unconscious Bias. (April 21, 2017). University of Kentucky. State. Lexington, KY, United States. This workshop aimed at bringing awareness to the bias that we may or may not have toward certain people, jobs, groups, positions, programs, etc. Very enlightening. At this training we realized that many county agents have a very strong bias against the Horse Program.

### Awards and Honors

- *Teacher Who Made a Difference*, University of Kentucky, College of Education. Teaching, Recognition Award, State. (May 2018).
- *Teacher Who Made a Difference*, University of Kentucky, College of Education. Teaching, Recognition Award, State. (May 2017).
- *Eastern National Horse Roundup Outstanding Service Award*, Eastern National Horse Roundup. Leadership, Recognition Award, National. (November 6, 2016).

# Dr. Robert J. Coleman

College of Agriculture, Food and Environment Department of Animal and Food Science

# Education

- PhD, University of Alberta, 1998. Major: Animal Sciences, General
- MS, University of Manitoba, 1978. Major: Animal Sciences, Other
- BS, University of Manitoba, 1975. Major: Animal Sciences, General

# **Research and Scholarship**

#### **Intellectual Contributions**

\* = Senior Author ~ = Corresponding Author + = Grad/Prof Student # = Post Doc ^ = Undergraduate WOS = Web of ScienceJIF = Journal Impact Factor TC = Journal Total Cites SNIP = Source Normalize Impact per Paper SJR = Scimago Journal Rank

#### Published

#### Journal Article, Academic Journal

- McGill, S., Hayes, M., Tumlin, K., & Coleman, R. (2021). Characterization of indoor arenas through an anonymous survey. Translational Animal Science, 5(4). doi:10.1093/tas/txab198.
- McGill, S., Coleman, B., & Hayes, M. (2021). Air Speed to Increase Rate of Cool Out for Horses After Intense Exercise. Journal of Equine Veterinary Science, 102, 103641. doi:https://doi.org/10.1016/j.jevs.2021.103641.
- Catalano, D. N., Coleman, R. J., Hathaway, M. R., Neu, A. E., Wagner, E. L., Tyler, P. J., McCue, M. E., Martinson, K. L. (2019). Estimation of Actual and Ideal Bodyweight Using Morphometric Measurements of Miniature, Saddle-Type, and Thoroughbred Horses, *Journal of Equine Veterinary Science*, 78, 117-122. doi: 10.1016/j.jevs.2019.04.008
  Scopus Metric Year: 2019 | Category: Equine Science | CiteScore: 1.7 | Rank: #/N: 5/7 | SNIP: 0.726 | SJR: 0.424
- Kunz, I. G.Z., Reed, K. J., Metcalf, J. L., Hassel, D. M., Coleman, R. J., Hess, T. M., Coleman, S. J. (2019). Equine Fecal Microbiota Changes Associated With Anthelmintic Administration, *Journal of Equine Veterinary Science*, 77, 98-106. doi: 10.1016/j.jevs.2019.01.018
  Scopus Metric Year: 2019 | Category: Equine Science | CiteScore: 1.7 | Rank: #/N: 5/7 | SNIP: 0.726 | SJR: 0.424
- Catalano, D. N., Coleman, R. J., Hathaway, M. R., McCue, M. E., Rendahl, A. K., Martinson, K. L.
   (2016). Estimation of Actual and Ideal Bodyweight Using Morphometric Measurements and Owner Guessed Bodyweight of Adult Draft and Warmblood Horses, JOURNAL OF EQUINE VETERINARY SCIENCE, 39, 38-43. doi: 10.1016/j.jevs.2015.09.002

+ Mastellar, S. L., Coleman, R. J., \* Urschel, K. L. (2016). Controlled trial of whole body protein synthesis and plasma amino acid concentrations in yearling horses fed graded amounts of lysine, *Veterinary Journal*, 216, 93-100. doi: 10.1016/j.tvjl.2016.07.007

#### Review

Nielsen, B. D., Coleman, R. J., Warren, L. K. (2017). The Equine Science Society: From the 1st to the 25th Symposium, *JOURNAL OF EQUINE VETERINARY SCIENCE*, 52, 36-40. doi: 10.1016/j.jevs.2017.03.216
JJF: 0.882

### **Sponsored Projects**

#### Awarded

Hayes M., D., Coleman R., J., Predoctoral Fellowship for McGill: Improving Indoor Arenas for the Equine Industry, Sponsored by National Institute of Food and Agriculture Submitted: July 29, 2019. Funding Dates: June 15, 2020 - June 14, 2023. | Awarded: \$180,000.00
OSPA ID: 201907290901

#### **Scope Grants**

Closed

- Urschel K., L., Coleman R., J., ARS/SCA: Improving dietary protein quality in forage fed horses, Sponsored by Agricultural Research Service Submitted: July 12, 2013. Funding Dates: July 1, 2013 - April 30, 2018. | Current Budget Amount: \$126,457.00 Prime Grant OSPA ID: 201305081534
- Urschel K., L., Coleman R., J., Dorsch S., ARS/SCA: Improving dietary protein quality in forage fed horses, Sponsored by Agricultural Research Service Submitted: February 5, 2016. Funding Dates: May 1, 2013 April 30, 2018. Requested: \$70,223.00, | Current Budget Amount: \$70,223.00
   Descriptional protection the effects of forage turns and protection on amine acid.

Description: Investigating the effects of forage type and protein or amino acid supplementation on whole-body protein synthesis in growing and mature horses. Both Dr. Urschel and Dr. Coleman contributed to study design and the studies were carried out by graduate student Sophie Dorsch. Prime Grant OSPA ID: 201602041500

Non-Sponsored Projects

#### College

Hatch

Not Funded

Hayes, M. D., Jackson, J. J., Coleman, R. J., Solar Powered Equine Shade Structure, CAFE Research Activity Award, (November 1, 2019 - June 30, 2020). Awarded: \$5900.

#### University

#### **On-going**

Holder, M. (Co-Investigator), Coleman, R. J. (Co-Investigator), Lawrence, L. M. (Collaborator), Hayes, M. D. (Collaborator), Fowler, A. L. (Post-Doc Student), Dockery, J. (Collaborator), Aerated manure compost facility for the smaller horse-farm operation, Sustainability Challenge Grant, (July 2020 - October 2021). Awarded: \$24461.1.

# **Presentations Given**

Coleman R. J., (September 23, 2020). Impact of COVID -19 on the Equine Industry Alltech One 2020, Alltech, United States. National.

# **Invited Speaker**

- Coleman R. J., (July 21, 2020). Equine Science Society: A community that grew American Society of Animal Sciences Annual Meeting, American Society of Animal Sciences virtual conference 2020, United States. Invited, National.
- Coleman R. J., (July 10, 2019). Does Your Classroom have 4 walls American Society of Animal Sciences Annual Meeting, American Society of Animal Sciences, Austin, TX, United States. Invited.

#### Other

Coleman R. J., (January 15, 2018). Bermuda Grass and and its use in Horse pastures American Forage and Grassland Council Conference 2018, American Forage and Grassland Council, Louisville, KY, United States. Invited, National.

#### **Podium Session**

 Wilson K. M., Robin S. C., Coleman R. J., Urschel K. L., Rossano M. G., Heleski C. R., (May 25, 2021). Using assessment and curriculum mapping to enhance your undergraduate programming efforts 2021
 National Association of Equine Affiliated Academics Annual meeting, National Association of Equine Affiliated Academics, Virtual meeting. Accepted, National.

# Extension

# **Extension Publications & Media**

\* = Senior Author ~ = Corresponding Author ·

+ = Grad/Prof Student # = Post Doc

^ = Undergraduate

# Published

# Peer-Reviewed

# **Extension Publication- Numbered, Original Content**

McGill, S., Hayes, M., Tumlin, K., Coleman, R., Linhoss, J., Are Common Stall Fans Effective? Orientation, Placement, and Fan Style. ID-261. 2020. McGill, S., Hayes, M., Tumlin, K., Coleman, R., Indoor Arena Survey Results. AEU-106. 2019.

Coleman, R., Hayes, M., McGill, S., Suitable Spaces for Indoor Horse Activities. ID-259. 2019

- Coleman, R., Hayes M., McGill S. (2021). ID 271- Equine Layout and facility planning checklist.
- McGill, S., Coleman, R., Tumlin, K., Hayes, M. (2021). ID-270- Human-Horse-Environment Interface: Metals in Indoor Horse Arenas.

#### **Extension Publication- Numbered, Revised Content**

- Coleman, R. J., Henning, J. C., Camargo, F. C. (2020). ID-196- UK Ag Equine Programs Calendar, 2021 Lexington, KY, *University of Kentucky Agricultural Communications Service*, 32.
- Coleman, R. J., Henning, J. C., Camargo, F. C. (2019). ID-196- UK Ag Equine Programs Calendar, 2020 Lexington, KY, University of Kentucky Agricultural Communications Service, 32.
- Coleman, R. J., Henning, J. C., Camargo, F. C. (2018). ID-196- UK Ag Equine Programs Calendar, 2019 Lexington, KY, University of Kentucky Agricultural Communications Service, 32.
- \* Coleman, R. J. (2017). ID-196- UK Ag Equine Programs Calendar, 2018 Lexington, KY, University of Kentucky Agricultural Communications Service, 32.

#### Non Peer-Reviewed

#### **Extension Publication- Non-numbered, Original Content**

Teutsch, C., Lea, K., Coleman, R. J., Smith, S. R. (2018). Improving Kentucky horse pastures.

#### **Extension Publication- Numbered, Original Content**

- Burnham, C., Hayes, M., McGill, S., Coleman, R., Riding Arena Maintenance: Materials and Characteristics. ID-265. 2020.
- Burnham, C., Hayes, M., McGill, S., Coleman, R., Riding Arena Maintenance: Dragging and Watering. ID-266. 2020.
- Burnham, C., Hayes, M., McGill, S., Coleman, R., Riding Arena Maintenance: Equipment Guide. ID-267. 2020.

#### Magazine/Trade Publication

- Camargo, F. C., Lawrence, L. M., Coleman, R. J. (2019). Body Condition Scoring Horses: Step by Step, *The Horse Magazine*.
- Camargo, F. C., Lawrence, L. M., Coleman, R. J. (2019). My Horse is Skinny. What Should I do?, *The Horse Magazine*.
- Camargo, F. C., Lawrence, L. M., Coleman, R. J. (2019). My Horse is too Fat. What should I do?, *The Horse Magazine*.

# **Extension Presentations Summary**

#### **County Presentations**

April 9, 2018.

Description: Spoke on bits to the Hardin County 4-H Club kids and parents. Was part of atraining for the County Hippology Team | Presentations: 1 | Participants: 40.

#### **Field Day Presentations**

#### July, 2021:

Hay Production Field Day July 2021 Boone County Kentucky Presentation on Hay requirements for horse owners – what is quality hay.

#### August 6, 2018.

Description: Spoke at the Farm and Facility Expo on Rotational Grazing systems for horses | Presentations: 4 | Participants: 75.

### June 8, 2017.

Description: The Annual Farm and Facility Expo held at New Vocations. Spoke on Barn Design. | Presentations: 4 | Participants: 225.

#### **Multi-County Presentations**

January 1, 2017 - March 1, 2018.

Description: Multiple presentations as part of Master Horse Owner programs in Boyd, Christina, Scott, Whitley Counties | Presentations: 20 | Participants: 185.

# Other

October 27, 2018.

Description: Part of the Round Table Program at the 2017 international Certified Horsemanship Conference in Lexington KY. The round Table was each speaker gave their presentation 4 times over the course of a 2 hour time period. Spoke on keep your horses in good Body Condition. | Presentations: 4 | Participants: 40.

#### September 28, 2018.

Description: Round Table Presentation at the 2018 Certified Horsemanship Association International Convention.

Spoke on reading the feed tag to make good buying choices. | Presentations: 4 | Participants: 48.

#### February 11, 2017 - July 27, 2018.

Description: Presentations given at County Saddle Clubs | Presentations: 2 | Participants: 45.

February 2018 - April 2018.

Description: Working with the Equine Humane Center and their Take the Reins program of science and math for 4th graders. Gave presentations on horse tack and equipment in a way to include basic math skills. | Presentations: 5 | Participants: 100.

## April 14, 2018 - April 15, 2018.

Description: Gave 3 presentations at the 2018 Equine Affair in Columbus Ohio. This major Equine Educational event brings horse owners from many surrounding states to take in seminars. Spoke on Facility design, Mud Management and facility layout. | Presentations: 3 | Participants: 265.

#### February 2017 - February 2018.

Description: Presentations given over 3 different Recreation Rider Days organized by the Kentucky Horse Council | Presentations: 3 | Participants: 60.

January 27, 2018.

Description: Spoke at the 2018 US Pony Club annual Conference in Louisville Kentucky. | Presentations: 2 | Participants: 100.

# November 11, 2017.

Description: Spoke at the 1st Northern Kentucky Equine Conference on Hay feeders a cost or a savings | Presentations: 1 | Participants: 65.

# **Extension Education & Training Programs** Demonstration

Accepted speaker. How to be safe when riding at a multi use facility. (May 11, 2019). Scope: County. Participants: 12 General public.

Description: Discussed how horse owners could keep horses healthy when using a multi use facility like a trail ride area.

**Program organizer**. Kentucky Horse Council Recreation Rider Day. (March 30, 2019). Scope: Multi-county. Counties: 7. Participants: 50 Interest group members.

# **Field Day Presentation**

*Accepted speaker*. How Horse's Digest feed. (September 5, 2019). Scope: Multi-county. Counties: 5. Participants: 75 General public.

Description: Field day was held to show case pasture renovation, basic horse topics of nutrition and health and to show NRCS activities on a horse operation.

*Other*. Hay feeders - managing waste. (May 30, 2019). Scope: Multi-county. Counties: 8. Participants: 125 General public. Description: Gave a presentation on hay feeders and was part of the organizing committee

Accepted speaker. Feeding Strategies. (May 18, 2019). Scope: Multi-county. Counties: 3. Participants: 27 General public.

Description: Spoke on the need to know horse body weigh and how to estimate that, feeding levels with different concentrates and selecting hay

#### **Multi-County Presentation**

*Accepted speaker*. Master Horse Owner. (November 7, 2019 - December 5, 2019). Scope: Multi-county. Counties: 4. Participants: 22 General public.

Description: This program is over 4 nights with a local veterinarian covering the topic of equine health. The other nights included a seminar on pasture management with the Forage Specialist co-presenting, I did a session on feed management and then co-presented a session with the Oldham County agent on facilities including the basic equipment a small holding could consider. That was a first time topic and wen over well.

*Accepted speaker*. Master Horse Owner. (March 18, 2019 - April 1, 2019). Scope: Multi-county. Counties: 4. Participants: 37 General public.

Description: This program is over 3 nights with a local veterinarian covering the topic of equine health. I covered the other 2 nights with a presentation on feeding strategies and facilities.

The program was three nights March 18, 25 and April 1.

#### Multi-modal Program (describe in description box)

Accepted speaker. Extension Horses - How to determine horse body weight and why. (September 22, 2020). Scope: Multi-state. States: 9. Participants: 149 Interest group members.

Description: As part of Extension Horses I spoke on how to estimate body weight and why it is important to have an accurate estimation.

Accepted speaker. Bits for horses Part 2 Facebook live. (June 3, 2020). Scope: Multi-state. States: 8. Participants: 2300 General public.

Description: This was a face book live to talk about bits for horses and how they are used. this was a second edition to allow us to complete the program

Accepted speaker. Bits for horses Part 1 Facebook live. (May 21, 2020). Scope: Multi-state. States: 8. Participants: 2300 General public.

# Description: This was a face book live to talk about bits for horses and how they are used.

#### Seminar

Accepted speaker. Hippology Academy. (November 12, 2020). Scope: Multi-state. Interest group members.

Description: Participated in a panel to talk to coaches of hippology teams on how to prepare their teams for competition.

Accepted speaker. Feeding basics Northern Kentucky Equine Conference. (November 7, 2020). Scope: Multi-county. Counties: 7. Interest group members.

Description: Presentation on the basics of building a feeding program and then chaired the remaining time with three other speakers speaking on forages, commercial feeds and supplements.

I then gave a summary presentation to bring the seminar back to a final place.

Accepted speaker. Educational Resources for youth program CHA International Conference. (October 30, 2020). Scope: International. States: 13. Participants: 75 Interest group members.

Description: Spoke at the 2020 Virtual International Conference on the resources available to those working with youth in horse related educational activities.

*Accepted speaker*. District 6 4-H Program. (February 1, 2020). Scope: Multi-county. Counties: 5. Participants: 65 Interest group members.

Description: Participated in a panel discussion on careers for 4-H'ers and how to prepare is college is in your plan.

Also helped with a hands on activity on basic horsemanship related to knots horse owners need to know.

- Accepted speaker. Pastures Please Maximizing hay use minimizing waste. (January 27, 2020). Scope: Multi-county. Counties: 6. Participants: 125 General public. Description: Was part of the program spoke on minimizing hay waste
- Accepted speaker. Feeding Strategies. (January 21, 2020). Scope: Multi-county. Counties: 5. Participants: 46 General public.

Description: Spoke to this group in person on feeding strategies for horses in light to moderate work.

- Accepted speaker. Barn Design to keep horses and humans healthy. (November 9, 2019). Scope: Multi-county. Counties: 8. Participants: 120 Interest group members.
   Description: Presentation was part of a three prestation break out group on equine facilities
- *Other*. Bits and how they work. (November 9, 2019). Scope: Multi-county. Counties: 8. Participants: 90 Interest group members. Description: Gave this presentation to 90 youth attending the 3rd Annual Conference
- Accepted speaker. Feeding School Horses they work harder than you think. (October 21, 2019 October 24, 2019). Scope: International. Participants: 135 Industry professionals.
   Description: Gave a presentation at the conference on feeding school or lesson horses. also participated in other association activities.
- Accepted speaker. Southern Equine Expo Educational Program. (February 23, 2019 February 24, 2019). Scope: Multi-state. States: 4. Participants: 125 Interest group members. Description: Gave 3 presentations during the program covering pasture management, facility design and general feed management. Audience ranged from 60 to 125 depending on the topic.

Accepted speaker. Selecting bits and other pieces of tack. (February 9, 2019). Scope: County.
 Participants: 30 Interest group members.
 Description: Gave an interactive presentation on bits and other pieces of tack. I had numerous example for the audience to see.
 Short discussion as to what was legal with 4-H

Accepted speaker. Feed Selection. (January 17, 2019). Scope: Multi-county. Counties: 6.
 Participants: 32 Interest group members.
 Description: Virtual session as part of their regular monthly meeting discussing basic criteria to select feeds for their horses

# Workshop

Accepted speaker. NRCS Horse Operations. (April 8, 2020). Scope: Multi-county. Counties: 6.
 Participants: 67 Industry professionals.
 Description: Spoke on the uniqueness of horse operations

 Other. Horse Enterprises how are they different. (February 26, 2019). Scope: Multi-county. Counties: 10. Participants: 65 Industry professionals.
 Description: Worked to organize the event and spoke on the uniqueness of horse operations in relation to NRCS and the programs they offer.

# Program and Curriculum Development 2017

Program/Curriculum Name - Northern Kentucky Equine Conference

Description: Worked with local Extension agents and the Northern Kentucky Horse Network to organize a high quality one day Equine Conference for Horse Owners

Program/Curriculum Name - Master Horse Owner

Description: I have developed a comprehensive list of topics that can be used to develop a specific program for a multi county Master Horse Owner program. In addition to the list presentations have been developed.

# **Extension Related Consulting**

Government, Boyd County Extension, Catlettsburg, KY, United States. (October 9, 2018 - December 2018).

Description: Working with the saddle club and Boyd County Extension Office on developing facilities at the Boyd County Fairgrounds. To include equestrian trails and work on the outdoor arena

Government, Equine Health and Welfare Council, Frankfort, KY, United States. (2018).

Non-profit, Kentucky Horse Council Equine Welfare Committee, Lexington, KY, United States. (2018).

Description: Evaluate the submissions made by horse owners when thy have circumstance that may result in their ability to care for their horses.

Academic, Old College, Olds Alberta Canada, Olds, Canada. (September 2017 - December 2018).

Consultations with Horse Owners, Horse owners in the state, KY. (March 2017 - March 2018). Description: Worked with eight horse owners across the state on outdoor arena design and construction. there is limited assistance for arena construction

# **Media Contributions**

#### Internet

"Stable Management web site." (July 2018). discussion on how horse owners would prepare for the upcoming changes in weather to maximize use of paddocks and pastures while minimizing damage. Appeared on Web Aug 5,7,13, Sept 2. United States.

# Magazine

"Equus Magazine." (November 2018). Use of different bedding types for horses related to location of the county horses are kept. MD.

"The Horse." (November 2018). Horse management as the temperatures change. Lexington, KY.

# Teaching

# Teaching

Prefix Number - Section	Credit Hours	# Enrolled	Code Term Year
ASC 395 - 004	1.00000 - 4.00000	3	10 Fall 2020-2021
EQM 210 - 001	2.00000 - 2.00000	31	10 Fall 2020-2021
ASC 395 - 005	1.00000 - 4.00000	5	30 Spring 2019-2020
ASC 782 - 005	1.00000 - 4.00000	1	30 Spring 2019-2020
EQM 340 - 001	3.00000 - 3.00000	36	30 Spring 2019-2020
ASC 395 - 004	1.00000 - 4.00000	2	10 Fall 2019-2020
EQM 210 - 001	2.00000 - 2.00000	36	10 Fall 2019-2020
ASC 395 - 005	1.00000 - 4.00000	3	30 Spring 2018-2019
EQM 340 - 001	3.00000 - 3.00000	30	30 Spring 2018-2019
EQM 490 - 001	3.00000 - 3.00000	28	30 Spring 2018-2019
ASC 395 - 004	1.00000 - 4.00000	1	10 Fall 2018-2019
EQM 210 - 001	2.00000 - 2.00000	34	10 Fall 2018-2019
EQM 490 - 001	3.00000 - 3.00000	39	10 Fall 2018-2019
ASC 395 - 005	1.00000 - 4.00000	1	30 Spring 2017-2018
EQM 300 - 001	1.00000 - 6.00000	58	30 Spring 2017-2018
EQM 490 - 001	3.00000 - 3.00000	42	30 Spring 2017-2018
ASC 395 - 001	1.00000 - 4.00000	1	10 Fall 2017-2018
EQM 399 - 001	1.00000 - 6.00000	39	10 Fall 2017-2018
EQM 490 - 001	3.00000 - 3.00000	10	10 Fall 2017-2018
EQM 490 - 002	3.00000 - 3.00000	10	10 Fall 2017-2018
GEN 109 - 002	1.00000 - 6.00000	41	10 Fall 2017-2018
ASC 395 - 005	1.00000 - 4.00000	1	30 Spring 2016-2017
EQM 300 - 001	1.00000 - 6.00000	45	30 Spring 2016-2017
EQM 490 - 001	3.00000 - 3.00000	15	30 Spring 2016-2017
EQM 490 - 002	3.00000 - 3.00000	14	30 Spring 2016-2017
ASC 395 - 001	1.00000 - 4.00000	3	10 Fall 2016-2017
ASC 395 - 020	1.00000 - 4.00000	1	52 2nd summer
			2015-2016
ASC 395 - 010	1.00000 - 4.00000	1	51 1st summer
			2015-2016
ASC 395 - 005	1.00000 - 4.00000	1	30 Spring 2015-2016
EQM 300 - 001	1.00000 - 6.00000	33	30 Spring 2015-2016

EQM 490 - 001	3.00000 - 3.00000	12	30 Spring 2015-2016
EQM 490 - 002	3.00000 - 3.00000	12	30 Spring 2015-2016

# **Teacher Course Evaluations**

Prefix Number - Section	Responses	TCE Course Quality Mean	TCE Teaching Quality Mean	Code Term Year
EQM 210 - 001	13	4.46	4.77	10 Fall 2020-2021
EQM 210 - 001	19	4.47	4.58	10 Fall 2019-2020
EQM 210 - 001	14	3.86	4.50	10 Fall 2018-2019
EQM 300 - 001	19	4.21	4.37	30 Spring 2017-2018
EQM 300 - 001	21	4.29	4.38	30 Spring 2016-2017
EQM 300 - 001	9	3.78	4.00	30 Spring 2015-2016
EQM 340 - 001	16	4.44	4.73	30 Spring 2019-2020
EQM 340 - 001	11	4.55	4.73	30 Spring 2018-2019
EQM 490 - 001	8	4.38	4.75	30 Spring 2018-2019
EQM 490 - 001	11	4.36	4.64	10 Fall 2018-2019
EQM 490 - 001	18	4.11	4.44	30 Spring 2017-2018
EQM 490 - 001	5	5.00	5.00	10 Fall 2017-2018
EQM 490 - 001	5	3.60	4.80	30 Spring 2016-2017
EQM 490 - 002	7	4.00	4.71	10 Fall 2017-2018
EQM 490 - 002	8	4.75	5.00	30 Spring 2016-2017
GEN 109 - 002	13	4.00	4.15	10 Fall 2017-2018

Note: With regards to Spring 2020 TCEs please consider the following from page 121 of the UK Playbook for Fall 2020, "It is essential that performance evaluation take into account the extenuating circumstances brought about by the disruption for faculty in all title series and the extraordinary work accomplished by faculty in response to the disruption. Academic leaders shall reiterate that TCEs should be but one indicator of effective teaching in both periodic merit reviews and tenure/promotion decisions. Evaluation of teaching must go beyond student evaluations alone."

# **Theses and Dissertations**

### **Dissertation Committee Member**

Staci McGill, Ph.D. Biosystems and Agricultural Engineering, Status: In-Process. (2020 - Present).

- John Brunnquell, Animal Sciences, Status: In-Process, has completed two projects to this point, Drs. M Hayes, M. Rossano, J. Jackson, M. Toscano Chair A. Pescatore. (September 2017 - December 2019).
- Jessica Scare, Veterinary Sciences, Status: In-Process, working towards completion, Drs. E Bailey and D. Howe Chair Dr. M Nielsen. (September 2016 - 2019).

# **Master's Thesis Committee Member**

Shannon Dierking, Status: Completed. (2019).

- Stacie McGill, Biosystems and Ag Engineering, Status: In-Process, Student is currently on data analysis on the first components of the program, Drs. K. Tumlin, J Taraba chair is Dr. M Hayes. (September 2017 2019).
- AnnMarie Riley, Status: Completed, Student has completed her research and defend her work on September 24 2018. The student is currently making revisions to the thesis, Drs. Laurie Lawrence, Chris Teutsch and chair Dr. Ray Smith. (September 2016 - 2018).
- Sophia Dorsch, Animal Sciences, Status: In-Process, Student is working towards defending her work in November 2018, Dr. Amanda Adams and Chair is Dr. Kristine Urschel, Expected Completion Date: December 2018. (September 2016 - 2018).

Veronica Bill, Animal Sciences, Status: Completed. (January 2017 - June 7, 2018).

# **Academic Advising**

Fall 2020-2021, 40 undergraduate students advised.

Spring 2019-2020, 45 undergraduate students advised.

Fall 2019-2020, 45 undergraduate students advised.

Fall 2018-2019, 48 undergraduate students advised, advising for the spring 2019 semester.

- Spring 2017-2018, 50 undergraduate students advised, Academic advising for students in the ESMA program.
- Fall 2017-2018, 55 undergraduate students advised, Academic advising for students in the ESMA degree program.

# **Other Credit and Non-Credit Instructional Activities**

#### Faculty Adviser to the UK Equestrian Team

Participants: Undergraduate Students, 60,

Description: Advise the Hunt Seat and Western Riders who participate in the IHSA Team. This includes helping with paper work and determining eligibility of riders, working with club sports on UK requirements, work with two coaches to deal with lessons and show schedules. In addition work with possible donations of horses and follow up with routine care of donated horses.

Work with team treasurers on dues fees and payments for team related activities such as show entry fees.

Co chair with the coaches the UK sponsored horse show.

#### **Guest Lecture**

Introduction to the Horse and the Horse Industry, Participants: Undergraduate Students, 87, (December 2020) Description: How do horses fit in Animal Agriculture Lecture on equine Facilities

I give 2 lecture per semester

Equine Careers, Participants: Undergraduate Students, 18, (2019) Description: lecture on the Extension Specialist as a career in the spring and fall semester

# Service

# **Department Service**

#### **Committee Member**

APR Review Committee, (September 2020 - Present).

Search committee Beef Extension Position Princeton KY, (December 2017 - Present).

Equine Science and Management Curriculum Committee, (January 2017 - April 2018).

# **College Service**

# **Committee Member**

CAFE Appointment, Promotion and Tenure Committee, (July 2020 - June 2021).

Search Committee Equine Extension Veterinarian, (November 2017 - March 2018).

# **University Service**

# **Committee Member**

University Senate, (September 2020 - Present).

# **Professional Service**

# **Committee Chair**

- Northern Kentucky Horse Network Events Committee, Work with the committee on the planning of the annual Equine Conference held in November of each year in Boone County, (2017 Present).
- 4-H Horse Program Scholarship Committee, the committee awards scholarships to graduating seniors for their use in post secondary education., (2013 Present).

American Quarter Horse Association, Research Committee, (March 2015 - March 2019). Committee Member

AQHA Research Committee and am a member of the priorities sub-committee (2007-Present).

AQHA Animal Welfare Commission and serve on the Confirmation alteration Task Force and the Complaint and Reporting Task Force (2021 – Present).

Kentucky Quarter Horse Association, Horse Show Committee (2006 – Present).

- Kentucky Quarter Horse Association, Breeders' Incentive Fund Committee (2010- Present).
- Extension Horses, Community of Practice related to extension programing. Member of the national organization of equine extension professionals, (May 2020 Present).
- American Quarter Horse Association, Research Committee, (March 2019 Present).
- KFAC Advisory Committee, Works with those in the agricultural community who have a beginner farm loan., (2019 Present).
- Colorado State University, Colorado State University Equine Science Visioning Committee, (March 22, 2018 Present).
- American Registry of Professional Animal Scientists, Ethics Committee, (November 14, 2017 Present).
- Kentucky Horse Council, Kentucky Horse Council- KENA Committee Member, (January 2017 Present).

Kentucky Horse Shoeing School, PAC, (2012 - Present).

Kentucky Farm Bureau Equine Committee, (1998 - Present). Member

Mid West American Registry of Professional Animal Scientists, Mid West ARPAS board of directors, (March 2016 - March 2020).

Equine Science Society, Executive Director, (May 1, 2015 - Present). Officer, President/Elect/Past

Equine Science Society, Executive Director (2011– Present).

Certified Horsemanship Association, President- Executive Committee, (October 2020 - September 2022).

Certified Horsemanship Association, Executive Committee, (September 28, 2018 - October 2020).

# **Officer, Secretary**

Kentucky Quarter Horse Association, Kentucky Quarter Horse Association, (January 2017 - Present).

#### Serve on the health and Welfare Committee

Kentucky Horse Council, Kentucky Horse Council Health and Welfare Committee, (January 2017 - Present).

#### **Reviewer, Journal Article**

Journal of Equine Veterinary Science, Journal of Equine Veterinary Science, (January 2017 - December 2018).

# **Public Service**

Kentucky FFA Science Fair, (2019 - Present). Board Member

Kentucky Equine Adoption Center, Board member and volunteer at center activities, (October 2019 - Present).

#### **Guest Speaker**

Kentucky Horse park Youth Summer Education, (July 18, 2018).

#### **Invited Presentations**

Coleman R.J. 2020 4-H Resources: Ready for you and your youth. Certified Horsemanship association Annual International Conference October 2020 Virtual

Coleman R. J. 2021 Options to feed and water your horses. Certified Horsemanship association Annual International Conference November 2021 Fort Worth Texas

#### Judge for the State Horse Bowl Contest

Kentucky State 4-H Program, (June 2017 - Present).

Kentucky FFA, Science Fair, (June 6, 2018).

# **Professional Development**

#### **Professional Memberships**

Certified Horsemanship Association. International. (September 2018 - Present).

American College of Animal Sciences - Nutrition. National. (December 2010 - Present).

American Quarter Horse Association. (January 2006 - Present).

Kentucky Quarter Horse Association. State. (December 2005 - Present).

Kentucky Horse Council. State. (September 1998 - Present).

American Registry of Professional Animal Scientists. National. (August 1995 - Present).

Equine Science society. (1977 - Present).

American Society of Animal Science. International. (December 2018).

# **Development Activities Attended**

# **Conference Attendance**

- Certified Horsemanship Association International Conference. (September 28, 2018 September 30, 2018). Certified Horsemanship Association. International. Fort Collins, CO.
- Certified Horsemanship Association International Conference. (October 26, 2017 October 28, 2017). Certified Horsemanship Association. International. Lexington, KY, United States. Conference that covers topics related to proper instruction techniques to horse handling to facility management

Equine Science Society Symposium. (May 30, 2017 - June 2, 2017). Equine Science Society. International. St. Paul, MN, United States. This is the major Equine meeting to bring equine research teaching and extension together

# **Conference Proceedings**

- McGill, S., Hayes, M., Tumlin, K., & Coleman, R. (2021). Human-Horse-Environment Interface: Are There Metals in Indoor Arenas? Does This Impact Human Health? Paper presented at the Equine Science Society Symposium, Virtual.
- McGill, S., Hayes, M., Tumlin, K., & Coleman, R. Characterization of Indoor Arenas Through an Anonymous Survey. in ASABE 2020 Annual International Meeting. 2020. Virtual.
- McGill, S., M. Hayes, and R. Coleman, Fan Placement in Horse Stalls, in 10th International Livestock Environment Symposium. 2018: Omaha, NE.

# **Certification Training**

Site Visitor Training. (September 28, 2018 - October 1, 2018). Certified Horsemanship Association. National. Fort Collins, CO, United States. Attended the Site Visitor Training held prior to and the day after the CHA Convention

# **Awards and Honors**

- American Society of Animal Science Equine Science Society Award, American Society of Animal Science. Leadership, Lifetime achievement award. (July 2020).
- American Society of Animal Science Fellow award in Teaching, American Society of Animal Science. Teaching, Prestigious national fellowship. (July 2020).
- *Teacher Who Made a Difference*, University of Kentucky. Advising, nominated by a student. (April 2020).
- *Distinguished Teacher*, American Society of Animal Science. Teaching, Recognition Award, National. (July 10, 2019).
- *Volunteer of the Year 2018,* Certified Horsemanship Association. Service, Professional, Recognition Award, International. (October 2017 September 2018).

# **Licensures and Certifications**

Diplomat American College of Animal Science - Nutrition, American College of Animal Science. (2010 - Present).

# Certification

Lead Site Visitor and Trainer, Certified Horsemanship Association, KY, United States. (September 30, 2018 - Present).

# Registration

Professional Animal Scientist, American Registry of Professional Animal Scientists, United States. (December 2017 - December 2018).

# Dr. Morgan D. Hayes

College of Agriculture, Food and Environment Department of Biosystems and Agricultural Engineering 2016-2022 CV

# Education

- PhD, Iowa State University, 2012. Major: Agricultural Engineering, Biological/Biosystems Engineering
- MS, Univ Of Kentucky, 2008. Major: Agricultural Engineering, Biological/Biosystems Engineering
- BS, Pennsylvania State University, 2006. Major: Agricultural Engineering

# **Research and Scholarship**

#### **Intellectual Contributions**

\* = Senior Author ~ = Corresponding Author + = Grad/Prof Student # = Post Doc ^ = Undergraduate

WOS = Web of Science JIF = Journal Impact Factor TC = Journal Total Cites SNIP = Source Normalize Impact per Paper SJR = Scimago Journal Rank

#### Published

#### Journal Article, Academic Journal

- McGill, S., Coleman, B., Hayes, M. D. (2021). Air Speed to Increase Rate of Cool Out for Horses After Intense Exercise, *Journal of Equine Veterinary Science*, 102. doi: 10.1016/j.jevs.2021.103641
  WOS Metric Year: 2021 | JIF: 1.583 | TC: 3273
  Scopus Metric Year: 2020 | Category: Equine | CiteScore: 1.8 | Highest Percentile: 50 | SNIP: 0.871 | SJR: 0.413
- Shepherd, T. A., Xin, H., Stinn, J. P., Hayes, M. D., Zhao, Y., Li, H. (2017). Ammonia and Carbon Dioxide Emissions of Three Laying-Hen Housing Systems as Affected by Manure Accumulation Time, *Transactions of the ASABE*, 60(1), 229. | JIF: 0.96
- Lu, Y., Hayes, M. D., Stinn, J. P., Brown-Brandl, T., Xin, H. (2017). Evaluating Ventilation Rates Based on New Heat and Moisture Production Data for Swine Production, *Transactions of the ASABE*, 60(1), 237. | JIF: 0.96
- Parker, D. B., Hayes, M. D., Brown-Brandl, T., Woodbury, B. L., Spiehs, M., Koziel, J. A. (2016). Surface application of soybean peroxidase and calcium peroxide for reducing odorous VOC emissions from swine manure slurry, *Applied Engineering in Agriculture*, 32(4), 389–398. | JIF: 0.57

# **Sponsored Projects**

# Awarded

- Hayes M., D., Modern Pigs Urgently Need Facilities with Modern Ventilation: Updating Swine Ventilation Standards/Guidelines, Sponsored by Iowa State University Submitted: August 20, 2019. Funding Dates: September 1, 2020 - August 31, 2023. | Awarded: \$23,499.00 OSPA ID: 201908201205
- Hayes M., D., Coleman R., J., Predoctoral Fellowship for McGill: Improving Indoor Arenas for the Equine Industry, Sponsored by National Institute of Food and Agriculture Submitted: July 29, 2019. Funding Dates: June 15, 2020 June 14, 2023. | Awarded: \$180,000.00
  OSPA ID: 201907290901
- Bullock K., D., Anderson L., H., Arnold L., M., Burdine K., H., Hayes M., D., Jackson J., J., Lehmkuhler J., W., Smith S., R., Teutsch C., VanValin K., R., Integrated CAIP for Beef Cattle Production, Sponsored by KY Governor's Office of Agricultural Policy Submitted: March 25, 2020. Funding Dates: July 17, 2020 - July 17, 2022. | Awarded: \$256,602.00 OSPA ID: 202003251118

# Not Funded

- Jackson J., J., Arnold L., M., Burdine K., H., Hayes M., D., Sama M., Cattle Disease Traceability Using Ultrahigh Frequency (UHF) Backtags/Tags, Sponsored by Animal and Plant Health Inspection Service Submitted: July 29, 2019. | Awarded: \$0.00 OSPA ID: 201907290900
- Hoagg J., B., Bailey S., C.C., Hayes M., D., Martin A., Sama M., CPS: Medium: Data-Driven Flow-Field Estimation for Animal Welfare Management, Sponsored by National Science Foundation Submitted: May 4, 2018. | Awarded: \$0.00
   OSPA ID: 201805040837
- Pescatore A., J., Hayes M., D., Rentfrow G., K., Shockley J., M., Developing Plans for USDA-Certified, Custom Poultry Processing Facilities for Rural Areas in Kentucky, Sponsored by National Institute of Food and Agriculture Submitted: February 25, 2020. | Awarded: \$0.00

OSPA ID: 202002251708

 Hayes M., D., Jackson J., J., Pescatore A., J., Encouraging pasture poultry movement through moveable enrichments, Sponsored by University of Georgia Submitted: November 16, 2017.
 Awarded: \$0.00

OSPA ID: 201711161237

- Tumlin K., Hayes M., D., Hoover A., G., Engaging an Equine-Assisted Therapies Community in Catalyzing Air Quality Communication, Sponsored by National Academy of Sciences Submitted: July 1, 2019. | Awarded: \$0.00
   OSPA ID: 201907010954
- Tumlin K., Hayes M., D., Establishing Evidence-Based Best Practices in Equine Assisted Activities/Therapies: Impacts of Arena Design, Air Flow, and the Human-Horse Paradigm on Personal Exposures to Air Pollution, Sponsored by Horses and Humans Research Fdtn Submitted: July 30, 2019. | Awarded: \$0.00 OSPA ID: 201907300847
- Jackson J., J., Hayes M., D., Mark T., B., Mechanical ventilation for Beef cattle operations, Sponsored by University of Georgia Submitted: November 15, 2017. | Awarded: \$0.00 OSPA ID: 201711151250
- Hayes M., D., Recycling Secondary Poultry Nutrients into Poultry Feed Using Larvae of Black Soldier Flies, Hermetia illucens, Sponsored by US Poultry and Egg Association Submitted:

March 26, 2018. | Awarded: \$0.00 OSPA ID: 201803261403

 Hayes M., D., Updating Swine Ventilation Standards to Reflect Modern Production, Sponsored by National Institute of Food and Agriculture Submitted: October 29, 2018. | Awarded: \$0.00

OSPA ID: 201810290852

Hayes M., D., Validating Energy Conservation of Advanced Livestock Ventilation Systems with Real-Time Energy Data, Sponsored by Ohio State University Submitted: June 27, 2020. | Awarded: \$0.00

OSPA ID: 202006270904

 Hayes M., D., Water Harvesting and Reuse in Equine Indoor Arenas: The Use of Stored Water and Water's Impacts on the Indoor Arena Environment, Sponsored by University of Georgia Submitted: May 1, 2019. | Awarded: \$0.00
 OSPA ID: 201905011212

# Pending

Lehmkuhler J., W., McLeod K., R., Anderson L., H., Hayes M., D., Sustainable Intensification of Beef Production, Sponsored by University of Tennessee Submitted: March 26, 2021. | Awarded: \$0.00 OSPA ID: 202103261109

# **Non-Sponsored Projects**

# Not Funded

Shepherd, T. (Principal), Hayes, M. D. (Co-Investigator), Zulovich, J. (Co-Investigator), Hoff, S. (Co-Investigator), Andersen, D. (Co-Investigator), Harmon, J. (Co-Investigator), (October 1, 2018 - September 30, 2019). Awarded: \$30000.

# College

# Hatch

# Not Funded

Hayes, M. D., Jackson, J. J., Coleman, R. J., Solar Powered Equine Shade Structure, CAFE Research Activity Award, (November 1, 2019 - June 30, 2020). Awarded: \$5900.

# **On-going**

Cardoso Costa, J., Hayes, M. D., Development of an integrated data collection system for dairy calves and heifers, consisting of a wearable automatic behavior detection system and an ultra-high frequency radiofrequency identification device (UHF RFID) that will be used to measure the use of environmental enrichment at the University of Kentucky dairy farm, CAFE Research Activity Award, (November 1, 2017 - May 31, 2018). Awarded: \$6190.

# Federal

Hatch Multi-State On-going Hayes, M. D., Impacts of Stress Factors on Performance, Health, and Well-Being of Farm Animals (from W2173), (August 2, 2018 - September 30, 2021).

#### Other

#### **On-going**

Agouridis, C. T. (Principal), Dvorak, J. S. (Co-Principal), Hayes, M. D. (Co-Principal), Fox, G. (Co-Principal), ASABE Student Oral/Poster Presentation Competition, American Society of Agricultural and Biological Engineers, (February 1, 2018 - December 31, 2022). Awarded: \$41250.

Description: The purpose of the competition is to increase student participation in the ASABE Annual International Meeting (AIM) and to improve the quality of student oral and/or poster presentations given at the AIM.

# University

# Not Funded

 Hayes, M. D., Tumlin, K., Quantifying Human and Horse Dust and Other Environmental Exposures in Indoor Arenas, UKY Igniting Research Collaborations, (July 1, 2018 - December 31, 2018). Awarded: \$29875.

# **On-going**

 Holder, M. (Co-Investigator), Coleman, R. J. (Co-Investigator), Lawrence, L. M. (Collaborator), Hayes, M. D. (Collaborator), Fowler, A. L. (PostDoct Student), Dockery, J. (Collaborator), Aerated manure compost facility for the smaller horse-farm operation, Sustainability Challenge Grant, (July 2020 - October 2021). Awarded: \$24461.1.

# **Presentations Given**

Hayes M. D., McEachern T., (August 1, 2018). Building a Gradient Calorimeter to Measure Heat Production in Insects ASABE Annual Meeting, Detroit, MI.

# **Podium Session**

- McGill S., Hayes M., Jackson J. J., Tumlin K., Coleman B., (July 2021). Spatial Mapping within Equine Indoor Arenas 2021 Annual International Meeting, American Society of Agricultural and Biological Engineers, Virtual, United States. Accepted, International.
- Hayes M. D., McGill s., (July 2020). Development and validation of an autonomous radio-frequency identification controlled soaking system for dairy cattle

ASABE Annual International Meeting, ASABE, United States. Invited, International.

- Hayes M., Cardoso Costa J., Jackson J. J., Cantor M., Falk M., (September 26, 2018). Validation of Radio Frequency Identification with a Current Transducer to Quantify the use of an Automatic Grooming Brush in Pre-Weaned Dairy Calves ILES Conference 2018, Omaha, NE. Accepted.
- Yang S.-J., Wang X., Gates R., Hayes M. D., (June 17, 2017). A system simulation approach for estimating the integrated effect between swine growth performance and swine barn management: a dynamic model and its sensitivity analysis ASABE Annual International Meeting, ASABE, Spokane, WA, United States. Accepted, International.

Hayes M. D., (January 31, 2017). Energy Use In Agricultural Facilities ASHRAE Annual Winter Meeting, ASHRAE, Las Vegas, NV, United States. Accepted, International.

#### **Poster Session**

Hayes M. D., Jackson J. J., Cardoso Costa J., (July 2020). Development and validation of an autonomous radio-frequency identification controlled soaking system for dairy cattle

ASABE Annual International Meeting, ASABE, United States. Accepted, International. Hayes M., McGill S., (September 26, 2018). Fan Placement in Horse Stalls ILES Conference, Omaha, NE. Accepted.

# Extension

#### **Extension Publications & Media**

\* = Senior Author ~ = Corresponding Author + = Grad/Prof Student # = Post Doc ^ = Undergraduate

#### Published

#### Peer-Reviewed

#### **Extension Publication- Numbered, Original Content**

- \* Coleman, R. J., Hayes, M. D. (2021). ID-271 Equine Layout and Facility Planning Checklist Lexington, KY, University of Kentucky Agricultural Communications Service, 3.
- Teutsch, C., \* Hayes, M. D. (2021). ID-269 Using Electric Offsets as Part of Fencing Systems Lexington, KY, University of Kentucky Agricultural Communications Service, 4.
- Coleman, R. J., \* Hayes, M. D. (2021). ID-270 Human-Horse-Environment Interface: Metals in Indoor Horse Arenas Lexington, KY, *University of Kentucky Agricultural Communications Service*, 3.
- \* Hayes, M. D. (2020). AEN-153 How Understanding and Managing Soil Organic Matter Can Improve Beef Cattle Production Lexington, KY, *University of Kentucky Agricultural Communications Service*, 2.
- \* Hayes, M. D., Jackson, J. J. (2020). AEN-152 Building a Hoop Barn Lexington, KY, University of Kentucky Agricultural Communications Service, 14.
- Hayes, M. D. (2020). AEN-150 Understanding Soil Mechanics to Improve Beef Cattle Winter-Feeding Areas and Production Lexington, KY, University of Kentucky Agricultural Communications Service, 2.
- \* Hayes, M. D., Coleman, R. J. (2020). ID-261 Are Common Stall Fans Effective? Orientation, Placement, and Fan Style Lexington, KY, University of Kentucky Agricultural Communications Service, 3.
- \* Hayes, M. D. (2020). AEN-148 Considerations in Goat Barn Design Lexington, KY, University of Kentucky Agricultural Communications Service, 5.
- \* Hayes, M. D. (2020). AEN-149 Heat Stress in Goats Lexington, KY, University of Kentucky Agricultural Communications Service, 3.

- \* Jackson, J. J., Hayes, M. D. (2020). AEN-145 Designing or Reworking Your Cattle-handling Facilities: A Checklist for Success Lexington, KY, *University of Kentucky Agricultural Communications Service*, 4.
- + McGill, S., Hayes, M. D., Coleman, R. J., Tumlin, K. (2019). AEU-106 Indoor Arena Survey Results.
- \* Coleman, R. J., Hayes, M. D. (2019). ID-259 Suitable Spaces for Indoor Horse Activities Lexington, KY, University of Kentucky Agricultural Communications Service, 2.
- Jackson, J. J., Hayes, M. D. (2019). AEN-139- Kentucky Wind Directions and Magnitudes: A Tool for Siting Barns Lexington, KY, *University of Kentucky Agricultural Communications Service*, 3.

# Non Peer-Reviewed

# **Extension Publication- Numbered, Original Content**

- Bunham, C., Hayes, M. D., McGill, S., Coleman, R. J. (2020). ID-265- Riding Arena Maintenance: Materials and Characteristics, *UK Agriculture Communication Services*.
- Bunham, C., Hayes, M. D., McGill, S., Coleman, R. J. (2020). ID-266- Riding Arena Maintenance: Dragging and Watering, *UK Agriculture Communication Services*.
- Bunham, C., Hayes, M. D., McGill, S., Coleman, R. J. (2020). ID-267- Riding Arena Maintenance: Equipment Guide, *UK Agriculture Communication Services*.

# **Extension Education & Training Programs**

# **County Agent In-Service Training**

 Invited speaker. Basics and Terminology of Electric Fencing. (May 2021 - October 2021). Scope: State. Participants: 30 County agents/ specialists. Number of Times Given: 2 Description: cover the basics of electric fencing: how it works and terminology Utility Bills. (April 4, 2018). Scope: State. Participants: 19 County agents/ specialists.
 Heat Stress. (March 23, 2018). Scope: State. Participants: 14 County agents/ specialists.
 Cow Calf Confinement. (January 10, 2018). Scope: State. Participants: 22 County agents/ specialists.

# **County Office Presentation**

- *Invited speaker*. Winter Feeding for Cattle. (February 2021). Scope: County. Participants: 30 General public. Number of Times Given: 1
- *Invited speaker*. Cattle Handling. (November 2020). Scope: Multi-county. Participants: 25 General public. Number of Times Given: 1
- *Invited speaker*. Winter Feeding for Cattle. (February 2020). Scope: County. Participants: 30 General public. Number of Times Given: 1

# Demonstration

*Invited speaker*. Farmstead Planning. (September 2021). Scope: Multi-county. Counties: 5. Participants: 60. Number of Times Given: 1

Description: Farmstead planning display and talk

*Invited speaker*. Cattle Handling Display. (February 2020). Scope: Multi-state. States: 5. Participants: 600. Number of Times Given: 1

Description: cattle handling display and discussion

# Farm Visit or Consultation

*Program organizer*. Cattle Handling Facilities. (November 1, 2021 - December 30, 2021). Scope: County. Participants: 3 Other.

Description: Meade County Cattle Handling Facilities. Site visit and developed recommendations for building/modifying a handling facility, Participants: 2 County Agent/Specialist, 1 Public Clientele

- Program organizer. Beef Confinement. (January 1, 2021 December 30, 2021). Scope: County. Participants: 3 Other. Number of Times Given: 3 Description: Site visit and recommendations for managing a facility to house beef cattle, Participants: 2 County Agent/Specialist and 1-3 Public Clientele
- **Program organizer**. Equine Facilities. (February 1, 2021 August 15, 2021). Scope: County. Participants: 6 Other.

Description: Fayette County. Site visits and developed recommendations for building/modifying equine arena/water movement, developing compost site Participants: 3 County Agents and Specialists, 2 Public Clientele, 1 veterinarian

**Program organizer**. Cattle Handling Facilities. (May 1, 2021 - July 30, 2021). Scope: County. Participants: 4 Other.

Description: Cattle Handling Facilities. Site visit and developed recommendations for building/modifying a handling facility, Participants: 2 County Agent/Specialist, 2 Public Clientele

**Program organizer**. Beef Confinement. (September 1, 2019 - June 30, 2020). Scope: County. Participants: 8 Other.

Description: Russell County. Site visit and recommendations for managing a facility to house beef cattle, Participants: 5 County Agent/Specialist and 3 Public Clientele

**Program organizer**. Cattle Confinement & Winter Feeding. (February 1, 2020 - May 30, 2020). Scope: County. Participants: 5 Other.

Description: Mercer County Cattle Confinement and Winter Feeding. Site visit and developed recommendations for building/modifying a barn and easier winter feeding, Participants: 2 County Agent/Specialist, 3 Public Clientele

**Program organizer**. Cattle Handling Facilities. (February 1, 2020 - May 30, 2020). Scope: County. Participants: 3 Other.

Description: Meade County Cattle Handling Facilities. Site visit and developed recommendations for building/modifying a handling facility, Participants: 2 County Agent/Specialist, 1 Public Clientele

- Beef cow-calf confinement. (January 2020 March 2020). Scope: County. Participants: 7 General public. Number of Times Given: 2
- **Program organizer**. Beef Confinement. (February 1, 2020 March 30, 2020). Scope: County. Participants: 4 Other.

Description: Mason County. Site visit and recommendations for building/modifying and managing a facility to winter beef cattle, Participants: 2 County Agent/Specialist and 2 Public Clientele

**Program organizer**. Beef Confinement. (February 1, 2020 - March 30, 2020). Scope: County. Participants: 3 Other.

Description: Nelson County. Site visit and recommendations for managing a facility to house beef cattle, Participants: 2 County Agent/Specialist and 1 Public Clientele

**Program organizer**. Beef Confinement. (November 1, 2019 - March 30, 2020). Scope: County. Participants: 4 Other.

Description: Clark County. Site visit and recommendations for building/modifying and

managing a facility to winter beef feeder cattle, Participants: 2 County Agent/Specialist and 2 Public Clientele

*Task force member*. Swine Ventilation. (September 15, 2019 - March 1, 2020). Scope: State. Participants: 4 Other.

Description: UK Swine Unit. Site visit and recommendations for improving ventilation, identify industry experts and assist with setting up farm visits for getting bids to renovate ventilation scheme. Participants: 2 County Agents and Specialists, 2 faculty, 1 farm manager, and 3 industry personnel

**Program organizer**. Beef Confinement. (November 1, 2019 - January 15, 2020). Scope: Multi-county. Counties: 2. Participants: 5 Other.

Description: Simpson/Allen County. Site visit and recommendations for managing a facility to house beef cattle, Participants: 3 County Agent/Specialist and 2 Public Clientele

*Program organizer*. Equine Facilities. (October 1, 2019 - December 15, 2019). Scope: County. Participants: 4 Other.

Description: Fayette County. Site visits and developed recommendations for building/modifying equine arena/water movement, Participants: 2 County Agents and Specialists, 2 Public Clientele

*Program organizer*. Cattle Handling Facilities. (October 1, 2019 - November 30, 2019). Scope: County. Participants: 4 Other.

Description: Breckinridge County Cattle Handling Facilities. Site visit and developed recommendations for building/modifying a handling facility, Participants: 2 County Agent/Specialist, 2 Public Clientele

*Program organizer*. Cattle Handling Facilities. (May 1, 2019 - September 30, 2019). Scope: County. Participants: 5 Other.

Description: Jessamine County Cattle Handling Facilities. Site visit and developed recommendations for building/modifying a handling facility, Participants: 2 County Agent/Specialist, 3 Public Clientele

*Program organizer*. Equine Facilities. (June 1, 2019 - August 15, 2019). Scope: County. Participants: 5 Other.

Description: Oldham County. Site visits and developed recommendations for building/modifying a handling facility, Participants: 3 County Agents and Specialists, 2 Public Clientele

*Task force member*. Poultry Ventilation. (May 1, 2019 - July 14, 2019). Scope: Multi-state. Participants: 7 Other.

Description: USDA. Site visit and recommendations to address ventilation concerns, Participants: 3 Specialists, 4 USDA employees/public clientele

**Program organizer**. Swine Ventilation. (May 15, 2019 - June 30, 2019). Scope: County. Participants: 4 Other.

Description: Daviess County. Site visit and recommendations for improving ventilation, Participants: 2 County Agents and Specialists, 2 Public Clientele

# **Program organizer**. Beef Confinement. (May 1, 2019 - June 30, 2019). Scope: County. Participants: 3 Other.

Description: Owen County. Site visit and recommendations for building/modifying a facility to house beef cattle, Participants: 2 County Agent/Specialist and 1 Public Clientele

**Program organizer**. Cattle Handling Facilities. (May 1, 2019 - June 30, 2019). Scope: County. Participants: 4 Other.

Description: Breckinridge County Cattle Handling Facilities. Site visit and developed

recommendations for building/modifying a handling facility, Participants: 2 County Agent/Specialist, 2 Public Clientele

**Program organizer**. Beef Confinement. (May 1, 2019 - May 30, 2019). Scope: County. Participants: 3 Other.

Description: Owen County. Site visit and recommendations for building/modifying a facility to house beef cattle, Participants: 2 County Agent/Specialist and 1 Public Clientele

**Program organizer**. Beef Confinement. (May 1, 2019 - May 30, 2019). Scope: County. Participants: 5 Other.

Description: Christian County. Site visit and recommendations for building/modifying a facility to house beef cattle, Participants: 2 County Agent/Specialist and 3 Public Clientele

**Program organizer**. Cattle Handling Facilities. (May 1, 2019 - May 30, 2019). Scope: County. Participants: 3 Other.

Description: Breckinridge County Cattle Handling Facilities. Site visit and developed recommendations for building/modifying a handling facility, Participants: 2 County Agent/Specialist, 1 Public Clientele

*Program organizer*. Hay Barn. (May 1, 2019 - May 30, 2019). Scope: County. Participants: 4 Other.

Description: Oldham County. Site visit and recommendations for building/modifying a facility to house beef cattle, Participants: 2 County Specialist and 1 Public Clientele

**Program organizer**. Beef Confinement. (December 1, 2018 - May 30, 2019). Scope: County. Participants: 2 Other.

Description: Boyle County. Site visit and recommendations for building/modifying a facility to house beef cattle, Participants: 1 Specialist and 1 Public Clientele

**Program organizer**. Cattle Handling Facilities. (April 1, 2019 - April 30, 2019). Scope: County. Participants: 4 Other.

Description: Mason County Cattle Handling Facilities. Site visit and developed recommendations for building/modifying a handling facility, Participants: 2 County Agent/Specialist, 2 Public Clientele

*Program organizer*. Beef Confinement. (March 1, 2019 - March 30, 2019). Scope: County. Participants: 3 Other.

Description: Grayson County. Site visit and recommendations for building/modifying a facility to house beef cattle, Participants: 2 County Agent/Specialist and 1 Public Clientele

**Program organizer**. Beef Confinement. (March 1, 2019 - March 30, 2019). Scope: County. Participants: 2 Other.

Description: Grayson County. Site visit and recommendations for building/modifying a facility to house beef cattle, Participants: 1 County Agent/Specialist and 1 Public Clientele

**Program organizer**. Beef Confinement. (March 1, 2019 - March 30, 2019). Scope: County. Participants: 4 Other.

Description: Grayson County. Site visit and recommendations for building/modifying a facility to house beef cattle, Participants: 2 County Agent/Specialist and 2 Public Clientele

**Program organizer**. Beef Confinement. (November 1, 2018 - November 30, 2018). Scope: County. Participants: 2 Other.

Description: Site visit and recommendations for building/modifying a facility to house beef cattle, Participants: 1 County Agent and 1 Public Clientele

## **Program organizer**. Beef Confinement. (November 1, 2018 - November 30, 2018). Scope: County. Participants: 2 Other.

Description: Site visit and recommendations for building/modifying a facility to house beef cattle, Participants: 1 County Agent and 1 Public Clientele

**Program organizer**. Beef Confinement. (October 1, 2018 - October 30, 2018). Scope: County. Participants: 2 Other.

Description: Site visit and recommendations for building/modifying a facility to house beef cattle, Participants: 2 Public Clientele

**Program organizer**. Cattle Handling Facilities. (October 1, 2018 - October 30, 2018). Scope: County. Participants: 3 Other.

Description: Site visit and developed recommendations for building/modifying a handling facility, Participants: 1 County Agent, 1 Public Clientele

*Program organizer*. Cattle Handling Facilities. (October 1, 2018 - October 30, 2018). Scope: County. Participants: 4 Other.

Description: Site visit and developed recommendations for building/modifying a handling facility, Participants: 1 County Agent, 2 Public Clientele

**Program organizer**. Cattle Handling Facilities. (September 1, 2017 - October 3, 2017). Scope: County. Participants: 2 Other.

Description: Site visit and developed recommendations for building/modifying a handling facility, Participants: 1 County Agent, 1 Public Clientele

**Program organizer**. Beef Confinement. (August 3, 2017 - September 10, 2017). Scope: County. Participants: 6 Other.

Description: Site visit and recommendations for building/modifying a facility to house beef cattle, Participants: 4 County Agents and Specialists, 2 Public Clientele

**Program organizer**. Beef Confinement. (August 24, 2017 - September 2, 2017). Scope: County. Participants: 6 Other.

Description: Site visit and recommendations for building/modifying a facility to house beef cattle, Participants: 3 County Agents and Specialists, 3 Public Clientele

**Program organizer**. Dairy Ventilation. (August 7, 2017 - August 12, 2017). Scope: County. Participants: 8 Other.

Description: Site visit and recommendations for improving ventilation, Participants: 3 County Agents and Specialists, 5 Public Clientele

**Program organizer**. Dairy Ventilation. (August 2, 2017). Scope: Multi-county. Counties: 2. Participants: 8 Other.

Description: Site visit and recommendations for improving ventilation, Participants: 2 County Agents and Specialists, 6 Public Clientele

**Program organizer**. Poultry Ventilation. (July 13, 2017 - July 14, 2017). Scope: State. Participants: 6 Other.

Description: Site visit and recommendations to address ventilation concerns, Participants: 1 County Agents and Specialists, 5 Public Clientele

**Program organizer**. Beef Confinement. (July 10, 2017 - July 14, 2017). Scope: County. Participants: 6 Other.

Description: Site visit and recommendations for building/modifying a facility to house beef cattle, Participants: 2 County Agents and Specialists, 4 Public Clientele

**Program organizer**. Cattle Handling Facilities. (May 2, 2017 - May 10, 2017). Scope: County. Participants: 3 Other.

Description: Site visits and developed recommendations for building/modifying a handling facility, Participants: 1 County Agents and Specialists, 2 Public Clientele

*Program organizer*. Dairy Ventilation. (May 2, 2017 - May 9, 2017). Scope: County. Participants: 5 Other.

Description: Site visit and recommendations for improving ventilation, Participants: 2 County Agents and Specialists, 3 Public Clientele **Program organizer**. Beef Confinement. (April 18, 2017). Scope: County. Participants: 8 Other. Description: Site visit and recommendations for building/modifying a facility to house beef cattle, Participants: 6 County Agents and Specialists, 2 Public Clientele

**Program organizer**. Beef Confinement. (April 18, 2017). Scope: County. Participants: 6 Other. Description: Site visit and recommendations for building/modifying a facility to house beef cattle, Participants: 4 County Agents and Specialists, 2 Public Clientele

**Program organizer**. Cattle Handling Facilities. (December 6, 2016 - April 15, 2017). Scope: County. Participants: 4 Other.

Description: Site visit and developed recommendations for building/modifying a handling facility, Participants: 3 County Agents and Specialists, 1 Public Clientele

**Program organizer**. Cattle Handling Facilities. (March 27, 2017 - April 7, 2017). Scope: County. Participants: 4 Other.

Description: Site visit and developed recommendations for building/modifying a handling facility, Participants: 2 County Agents and Specialists, 2 Public Clientele

*Program organizer*. Poultry Structure. (November 11, 2016 - February 5, 2017). Scope: County. Participants: 7 Other.

Description: Site visit and investigate structural truss concerns, Participants: 3 County Agents and Specialists, 4 Public Clientele

*Program organizer*. Beef Confinement. (January 17, 2017 - January 21, 2017). Scope: County. Participants: 4 Other.

Description: Site visit and recommendations for building/modifying a facility to house beef cattle, Participants: 3 County Agents and Specialists, 1 Public Clientele

*Program organizer*. Beef Confinement. (December 19, 2016 - December 30, 2016). Scope: County. Participants: 4 Other.

Description: Site visit and recommendations for building/modifying a facility to house beef cattle, Participants: 2 County Agents and Specialists, 2 Public Clientele

**Program organizer**. Beef Confinement. (December 21, 2016 - December 22, 2016). Scope: County. Participants: 3 Other.

Description: Site visit and recommendations for building/modifying a facility to house beef cattle, Participants: 2 County Agents and Specialists, 1 Public Clientele

*Program organizer*. Poultry Ventilation. (December 2, 2016 - December 14, 2016). Scope: County. Participants: 5 Other.

Description: Site visit and recommendations to address ventilation concerns, Participants: 2 County Agents and Specialists, 3 Public Clientele

**Poster session presenter**. Cattle Handling Facilities. (November 9, 2016 - December 3, 2016). Scope: County. Participants: 5 Other.

Description: Site visit and developed recommendations for building/modifying a handling facility, Participants: 2 County Agents and Specialists, 3 Public Clientele

**Program organizer**. Cattle Handling Facilities. (November 10, 2016 - November 20, 2016). Scope: County. Participants: 3 Other.

Description: Site visit and developed recommendations for building/modifying a handling facility, Participants: 2 County Agents and Specialists, 1 Public Clientele

*Program organizer*. Cattle Handling Facilities. (October 31, 2016 - November 15, 2016). Scope: County. Participants: 4 Other.

Description: Site visit and developed recommendations for building/modifying a handling facility, Participants: 2 County Agents and Specialists, 2 Public Clientele

**Program organizer**. Beef Confinement. (October 10, 2016 - November 5, 2016). Scope: County. Participants: 8 Other.

Description: Site visit and recommendations for building/modifying a facility to house beef cattle, Participants: 5 County Agents and Specialists, 3 Public Clientele

**Program organizer**. Beef Confinement. (September 13, 2016 - September 24, 2016). Scope: County. Participants: 5 Other.

Description: Site visit and recommendations for building/modifying a facility to house beef cattle, Participants: 4 County Agents and Specialists, 1 Public Clientele

**Program organizer**. Dairy Ventilation. (August 31, 2016). Scope: Multi-county. Counties: 2. Participants: 15 Other.

Description: Site visit and recommendations for improving ventilation, Participants: 4 County Agents and Specialists, 11 Public Clientele

**Program organizer**. Beef Confinement. (August 15, 2016 - August 30, 2016). Scope: State. Participants: 3 Other.

Description: Recommendations for building/modifying a facility to house beef cattle, Participants: 1 County Agents and Specialists, 2 Public Clientele

## **Field Day Presentation**

*Invited speaker*. Fencing Display. (September 2020). Scope: State. Participants: 80 General public. Number of Times Given: 1 Description: Virtual Beef Bash

#### Multi-County Presentation

- *Invited speaker*. Master Small Ruminant Course. (June 2021 Present). Scope: State. Counties: 10. General public. Number of Times Given: 2
  - Description: fencing, farmstead planning, and relationship with a hay supplier
- *Invited speaker*. Fencing Basics and Costs. (May 2021 November 2021). Scope: Multi-county. Counties: 4. Participants: 80 General public. Number of Times Given: 4 Description: overview of fencing types and a calculator for figuring fencing costs

*Invited speaker*. Fencing and watering Overview. (October 2021). Scope: Multi-county. Counties: 5. Participants: 25 General public. Number of Times Given: 1 Description: overview of fencing types, approaches, and relative costs

- *Invited speaker*. Fencing Presentation. (April 2021). Scope: Multi-county. Counties: 2. Participants: 16 General public. Number of Times Given: 1
- *Invited speaker*. Fencing Basics and Costs. (October 2020). Scope: Multi-county. Counties: 4. Participants: 40 General public. Number of Times Given: 2

Description: overview of fencing types and a calculator for figuring fencing costs

- *Invited speaker*. Farmstead planning. (January 2020 October 2020). Scope: Multi-county. Counties: 5. Participants: 200 General public. Number of Times Given: 3
- Invited speaker. Cattle Handling. (January 2020 February 2020). Scope: Multi-county. Counties:6. Participants: 55 General public. Number of Times Given: 2

Description: covering cattle handling facilities and other facilities on beef farms *Invited speaker*. Managing mud and water on equine farms. (January 2020). Scope:

Multi-county. Counties: 4. Participants: 16 General public. Number of Times Given: 1 Other Extension Presentation

Keynote speaker. Farm Site Planning. (June 8, 2017). Scope: State.

Description: Equine Farm & Facilities Expo

*Keynote speaker*. Getting Started in Confinement: Cow-Calf Spacing and Ventilation. (March 21, 2017). Scope: Multi-state.

Description: Midwest Cow Calf Symposium

*Keynote speaker*. Getting More Use Out of Your Ventilation System. (December 1, 2016). Scope: State. Other. Description: KFB Annual Meeting- Poultry

## Seminar

*Invited speaker*. Equine Ventilation/Air Quality. (December 2020). Scope: Multi-state. States: 4. Participants: 55. Number of Times Given: 1 Description: Veterinary continuing education on air quality in equine facilities

## **Extension Related Consulting**

- Business and Industry, Farmers, KY. (October 1, 2017 September 30, 2018). Description: Cow Calf Confinement- 4 visits
- Business and Industry, Farmers, KY. (October 1, 2017 September 30, 2018). Description: Beef Feeder Confinement- 3 visits
- Business and Industry, Farmers, KY. (October 1, 2017 September 30, 2018). Description: Dairy Ventilation- 5 visits
- Business and Industry, Farmers, KY. (October 1, 2017 September 30, 2018). Description: Equine Facilities- 2 visits
- Business and Industry, Farmers, KY. (October 1, 2017 September 30, 2018). Description: Cattle Handling- 5 visits
- Business and Industry, Farmers/USDA, KY. (October 1, 2017 September 30, 2018). Description: Swine Housing/Ventilation- 2 visits

## Professional Service Committee Member

ASABE, Ventilation Standard Subcommittee for Major Revision, (August 2019 - Present).

## **Extension Media Summary**

Type of Media	Dates	Faculty Member's Role	Description	Evidence of Reach
TV- Bowling Green and YouTube	July 2021 - Present	Contributor	Proper Fan Maintenance	
TV- Bowling Green and YouTube	July 2021 - Present	Contributor	Fan Placement in Barns	
TV- Bowling Green and YouTube	July 2021 - Present	Contributor	Reducing Heat Stress in Livestock	
Newsletter- KY Dairy Development	June 2021 - Present	Contributor	Using Fans in Dairies	

Council				
The Horse Podcast	February 2021 - Present	Contributor	Equine Barn and Arena Design Research	
US Equestrian Magazine	November 2020 - Present	Contributor	10 Tips for Winterizing Your Barn	Magazine is sent electronically to over 100,000 members of US Equestrian Federation.
Weekly Podcast/YouTube Live - 'Have you Herd'	November 2021 - December 2021	Editor/Co-Editor	Podcast with Josh Jackson about the intersection of engineering and farming	6 episodes approximately 20 views each
Hay and Forage Grower Magazine	October 1, 2019	Contributor	So you're ready to build a hay barn; where should you put it?	
TV- Bowling Green	Septembe r 27, 2019	Contributor	Back Up Power	20,000 TV 2 YouTube
TV-Bowling Green	Septembe r 26, 2019	Contributor	Roof Rainfall Calculator	20,000 TV 2 YouTube
BAE Newsletter	Septembe r 1, 2019	Contributor	Why do I need a hay barn for round bales	
BAE Newsletter	June 1, 2019	Contributor	Does your barn need gutters?	
YouTube	April 30, 2019	Contributor	Fencing Types and Costs	167
BAE Newsletter	March 1, 2019	Contributor	Understanding Water Pressure	
Hay and Forage Grower Magazine	March 1, 2019	Contributor	Hay Barn Construction	
YouTube	February 28, 2019	Contributor	Barn Considerations for Cash Hay Operations	108
BAE Newsletter	December 1, 2018	Contributor	Round Bale Wastage in the Field	
TV-Bowling Green	August 24, 2018	Contributor	Wind and Barn Site Selection	20,000 TV 19 YouTube
TV-Bowling Green	August 23, 2018	Contributor	Unrolling Hay	20,000 TV 55 YouTube
TV-Bowling Green	August 22, 2018	Contributor	Hay Storage	20,000 TV 136 YouTube
TV-Bowling Green	August 21, 2018	Contributor	Cattle Handling: Scales	20,000 TV 12 YouTube
TV-Bowling Green	August 20, 2018	Contributor	Cattle Handling: The bud box design	20,000 TV 2,400 YouTube
BAE Newsletter	June 1, 2018	Contributor	Winter Feeding Facilities	

Website	November 1, 2017 - May 7, 2018	Editor/Co-Editor	https://www.uky.edu/bae/ce rcla Website to assist farmers in determining if they would need to report air emissions to EPA in anticipation of a new law going into effect	
Youtube	April 30, 2018	Contributor	Hay Machinery Talk	43
BAE Newsletter	March 1, 2018	Contributor	Fan Maintenance	
YouTube	February 28, 2018	Contributor	Cow-Calf Confinement Talk	196
BAE Newsletter	December 1, 2017	Contributor	How to Unroll Hay	

## **Media Contributions**

## Magazine

"Rural Builder." (October 2016). Two articles about ventilation. One about trends and one specifically about 60 inch fans. United States.

## **Extension Field & Community-Based Research**

Hayes, Morgan. Equine Indoor Arenas. (October 1, 2018 - September 30, 2019). 16 Central Kentucky. 22 participants. Hatch.

Description: Assessing Equine Indoor Arenas for Facility Design and Environmental Stressors

# Teaching

## Teaching

Prefix Number - Section	Credit Hours	# Enrolled	Code Term Year
BAE 767 - 008	2.00000 - 2.00000	1	10 Fall 2021-2022
BAE 427 - 001	3.00000 - 3.00000	18	30 Spring 2020-2021
BAE 767 - 001	2.00000 - 2.00000	1	30 Spring 2020-2021
BAE 427 - 001	3.00000 - 3.00000	14	30 Spring 2019-2020
BAE 625 - 001	3.00000 - 3.00000	1	30 Spring 2019-2020
BAE 427 - 001	3.00000 - 3.00000	22	30 Spring 2018-2019
BAE 625 - 001	3.00000 - 3.00000	1	30 Spring 2018-2019
BAE 748 - 001	0.00000 - 0.00000	1	30 Spring 2018-2019
BAE 750 - 001	1.00000 - 3.00000	1	30 Spring 2018-2019

BAE 748 - 015	0.00000 - 0.00000	1	10 Fall 2018-2019
BAE 427 - 001	3.00000 - 3.00000	32	30 Spring 2017-2018
BAE 748 - 001	0.00000 - 0.00000	1	30 Spring 2017-2018
BAE 750 - 001	1.00000 - 3.00000	2	30 Spring 2017-2018
BAE 768 - 006	1.00000 - 6.00000	1	10 Fall 2017-2018
BAE 450 - 001	1.00000 - 3.00000	1	30 Spring 2016-2017
BAE 450 - 001	1.00000 - 3.00000	1	10 Fall 2016-2017

## **Teacher Course Evaluations**

Prefix Number - Section	Responses	TCE Course Quality Mean	TCE Teaching Quality Mean	Code Term Year
BAE 427 - 001	9	3.78	4.33	30 Spring 2020-2021
BAE 427 - 001	11	4.73	4.82	30 Spring 2019-2020
BAE 427 - 001	17	3.94	4.24	30 Spring 2018-2019
BAE 427 - 001	14	3.00	3.07	30 Spring 2017-2018

Note: With regards to 2020 TCEs please consider the following from page 121 of the UK Playbook for Fall 2020, "It is essential that performance evaluation take into account the extenuating circumstances brought about by the disruption for faculty in all title series and the extraordinary work accomplished by faculty in response to the disruption. Academic leaders shall reiterate that TCEs should be but one indicator of effective teaching in both periodic merit reviews and tenure/promotion decisions. Evaluation of teaching must go beyond student evaluations alone."

## Theses and Dissertations

## **Capstone Project Committee Chair**

Lindsay Haynes, MS Science Translation and Outreach, "Farm Succession Planning Analysis for Kentucky," Status: Degree Awarded. (April 2021).

## **Dissertation Committee Chair**

Staci McGill, PhD, "Design Guidance for Equine Indoor Riding Arenas," Status: In-Process, Expected Completion Date: May 2022. (June 2019 - Present).

## **Dissertation Committee Member**

Melissa Cantor, PhD Animal Science, "Optimizing the detection of illness in dairy calves: the relationship between precision technology use, disease detection and identification, and management," Status: Degree Awarded, Expected Completion Date: August 2021. (September 2018 - July 2021).

John Brunnquell, PhD Animal Science, "Optimizing Animal Welfare in Commercial Laying Hens Through Novel Management Practices and Farm Manager Evaluation," Status: Degree Awarded. (September 2016 - May 2020).

## **Master's Thesis Committee Chair**

- Staci McGill, MS, "Evaluation of Air Movement in Equestrian Facilities and On Equine Athletes," Status: Degree Awarded. (May 2019).
- Travis McEachern, MS, "Determining Heat Production of Black Soldier Fly Larvae for Designing Rearing Structures at Livestock Facilities," Status: Degree Awarded. (December 2018).

## **Master's Thesis Committee Member**

- Britney Ragland, MS, "Variations of Time-Of-Day Electricity Rates as Applied to a Campus with Multiple Interconnected Delivery Points," Status: Degree Awarded. (May 2021).
- Christian Tabor, MS, "Simulated Impact of Energy Code on Occupant Thermal Comfort in Heating and Ventilation- only Warehouses," Status: Degree Awarded. (August 2018).
- Amanda Lee, MS Animal Science, "An Evaluation of Physiological and Behavioral Indicators of Metabolic Disease and Heat Stress in Dairy Cows," Status: Degree Awarded. (August 2017).

## **Outside examiner**

Kelly Mercier, PhD Plant and Soil Science, "Incorporation of Summer Annual Mixtures into Grazing Systems in Kentucky," Status: Degree Awarded. (May 2021).

## **Directed Student Learning (excluding theses, dissertations)**

- Coleman Stivers. Directed Individual/Independent Study. *Independent Study in conjunction with Big Ass Solutions internship*. Completed (August 15, 2016 - May 5, 2017).
  - Description: Independent study to support developing a research project and project management study with Big Ass Solutions
- Katharine Wolf. Directed Individual/Independent Study. *Dairy Goat Heat Stress*. Completed (August 15, 2016 December 10, 2016).

Description: Develop an extension article about heat stress in dairy goats and workbook to predict heat stress

## **Other Credit and Non-Credit Instructional Activities**

## **Course Director/Coordinator - Scheduled**

Structures and Environmental Control, Activity Type: Lecture, Delivery Mode: Traditional, (May 5, 2018)

## Service

## **Department Service**

## **Committee Chair**

Awards Committee, (September 1, 2021 - Present). Committee Member

Extension Committee, (September 2021 - Present).

Undergraduate Curriculum Committee, (September 2019 - Present).

Alumni and Development Committee, (October 1, 2016 - September 2021).

Research and Graduate Studies Committee, (October 1, 2016 - September 1, 2021).

## **College Service**

Beef Task Force, (October 2019 - Present). Committee Member

# Kentucky Association for State Extension Professionals (KASEP), (September 1, 2017 - May 2020).

## **Team member**

Extension - County Program Review, (March 1, 2019 - August 1, 2019).

Extension - County Program Review, (March 1, 2018 - June 1, 2018).

Extension - County Program Review, (March 1, 2017 - June 1, 2017).

## **Professional Service**

## Chairperson

ASABE ILES Conference, Planning Committee, (August 1, 2016 - September 30, 2018). Member

ASABE, Publications Editorial Board (P 513), (August 2016 - Present).

- ASABE, Machine Systems- Electronics for Animal Identification (MS 23/19/3), (August 2014 Present).
- ASABE, Plant, Animal, and Facility Systems Environmental Air QualityCommittee (PAFS 50), (August 2009 Present).
- ASABE, Plant, Animal, and Facility Systems Animal Systems Committee (PAFS 40), (August 2007 Present).

#### **Officer**, **President**/Elect/Past

ASABE, Plant, Animal, and Facility Systems Community Executive Committee, (August 2016 - August 2020).

ASHRAE, Plant and Animal Environment Technical Committee (TC 2.2), (July 2016 - July 2020). Reviewer, Grant Proposal

USDA Review Panel, (March 15, 2018 - March 20, 2018).

USDA Review Panel, (August 15, 2017 - September 20, 2017).

## **Professional Development**

#### **Professional Memberships**

American Society of Agricultural and Biological Engineers. International. (January 1, 2014 - Present).

American Society of Heating, Refrigeration, and Air Conditioning Engineers. International. (January 1, 2012 - Present).

## **Development Activities Attended**

#### **Conference Attendance**

ASHRAE - Summer Meeting. (June 25, 2017 - June 28, 2017). Professional society for heating, refrigeration, and air conditioning engineers annual summer meeting to learn about recent research.

#### **Continuing Education Program**

Swine Inservice. (September 26, 2017 - September 28, 2017). National Pork Producers. Updates on the swine industry

#### Workshop

Grant Writers Workshop. (March 16, 2017 - Present). CAFE Office of Research. Grant writing workshop parts 1 and 2

## **Awards and Honors**

ASABE Presidential Citation. Service, Professional, Recognition Award. (July 2019).

## **Licensures and Certifications**

## Licensure

Professional Engineer, Number: 31299, KY State Board of Licensure for Professional Engineers and Land Surveyors, KY, United States. (October 5, 2015 - April 30, 2019).

# ERIN JOY DESNOYERS

222 Bolivar Street Apt. 201 • Lexington, KY 40508 • 336-671-2810 • erin.desnoyers@uky.edu

## **Education**

## **Bachelor of Science**

Major: Equine Science and Management

University of Kentucky Minor: Agriculture Economics May 2014

## Work Experience

## **Operations Coordinator, UK Ag Equine Programs**

University of Kentucky, Lexington, KY - July 2019-Present

- Provide oversight and management of the program budget to include account reconciliation, purchasing, monitoring balances, expenditure allocations and future budget projections.
- Coordinate and facilitate human resources administrative needs in managing personnel data, time entry reports, payroll reports, reviewing cost allocations and variants, personnel hiring and onboarding.
- Assist with event planning and execution for numerous student, alumni and stakeholder events yeararound in areas of teaching, research and extension for the program. This involves event space reservations, collaborating with event staff at the college and university level, managing registration and payment platforms, coordinating catering and distributing and maintaining an editorial events calendar.
- Oversee daily office management needs for program faculty and staff to ensure operations run smoothly.
- Liaise and collaborate with the college business office regarding administrative budget needs and human resources for the program.
- Contribute to programmatic communications efforts as co-editor for the Graduate Gallop, a monthly enewsletter targeted to degree program alumni. Additionally, develop communications and marketing materials as needed, coordinate marketing efforts for equine industry events and support of the program website.
- Serve as a staff liaison to the UK Ag Equine Programs Diversity, Equity and Inclusion Student and Alumni Subcommittee to build community among underrepresented minority equine students and help to coordinate initiatives in conjunction with the program and college.

## **Director, National Affiliates**

United States Equestrian Federation, Lexington, KY - February 2017-July 2019

- Served as liaison for USEF Andalusian Lusitano, Paso Fino and Shetland Pony breeds and their committees.
- Managed the USA Saddle Seat Program to include the U.S. Saddle Seat Young Riders and World Cup Teams of youth athletes ranging 12-18 years of age.
- Planned and executed the 2018 Saddle Seat World Cup Team Selection Trials and 2018 Saddle Seat World Cup competition where the U.S. Saddle Seat World Cup Team won Gold medals against teams from Canada, Namibia and South Africa.
- Coordinated the 2017 U.S. Saddle Seat Invitational in Perry, Georgia where Saddle Seat teams from Canada, South Africa and the United States were hosted and competed for Gold, Silver and Bronze medals.
- Responsible for the USA Saddle Seat programs budget which included monthly budget phasing, review of general account ledgers and donation solicitations.

- Provided oversight to the team and coach selection process, planned team practices and travel, liaised for the Saddle Seat World Cup Subcommittee and maintained and updated USA Saddle Seat social media pages.
- Managed the 2019 U.S. Saddle Seat Young Riders Teams and coordinated the 2019 U.S. Saddle Seat Invitational Test Events held in New Orleans, LA and Las Vegas, NV.

## Administrative Assistant, National Affiliates

United States Equestrian Federation, Lexington KY, October 2014-January 2017

- Produced meeting materials, drafted meeting minutes, managed the department budget, facilitated merchandise orders and sales, and managed the USA Saddle Seat Facebook page.
- Coordinated new and renewing memberships for USEF Alliance Partners and Recognized Affiliates helping US Equestrian to increase the Alliance Partner membership numbers by 15 percent.
- Assisted the Senior Director and department in planning and coordinating USEF championships and events.
- Traveled with the Saddle Seat Young Riders and World Cup Teams in 2015 and 2016 to compete in South Africa and was responsible for collecting proper travel documentation for each athlete.

## **Keeneland Hospitality Team**

Keeneland Race Track, Lexington KY, October 2013 and April 2014

- Accompanied spectators to grand stand seating, corporate boxes, and dining rooms.
  - Provided information services to the spectators.

## Maryland Jockey Club and Preakness Stakes Internship

Maryland Jockey Club, Baltimore MD, May 2013

- Collaborated with officials, trainers, and track veterinarians to learn the different facets of track management and race day coordination.
- Assisted staff at the Maryland Jockey club with taking race entries.
- Shadowed the paddock judge, stewards, placing judges, and starting gate officials during race days to include the Black Eyed Susan and Preakness Stakes.

## **Stable Hand and Breeding Assistant**

Canterbury Farm, Winston-Salem NC, May-August 2012, 2013

- Responsible for feeding and caring for broodmares, foals, yearlings, and two year olds.
- Assisted in the foaling process.
- Exercised and helped train hunter/jumper horses.

## **Organizations and Professional Development**

- University of Kentucky Equine Alumni Affiliate Network Board Member
- United States Equestrian Federation-Member
- International Saddle Seat Equitation Association Secretary
- International Saddle Seat Equitation Association Treasurer
- EQM 105 Equine Behavior and Handling Class Assistant
- University of Kentucky Equestrian Team Member

January 2017-Present August 2011-Present February 2017-2019 November 2014-2019 January-May 2013 August 2011-May 2013

# Dr. Camie R. Heleski

College of Agriculture, Food and Environment Department of Animal and Food Science

## Education

- PhD, Michigan State University, 2004. Major: Animal Sciences, General
- MS, Michigan State University, 1992. Major: Animal Sciences, General
- BS, Michigan State University, 1988. Major: Animal Sciences, General

# **Research and Scholarship**

## **Intellectual Contributions**

\* = Senior Author ~ = Corresponding Author + = Grad/Prof Student # = Post Doc ^ = Undergraduate WOS = Web of Science JIF = Journal Impact Factor TC = Journal Total Cites SNIP = Source Normalize Impact per Paper SJR = Scimago Journal Rank

#### Published

#### Journal Article, Academic Journal

- Wickens, C., Arias Esquivel, A. M., Hendricks, C., Heleski, C. R. (2019). Perceptions of Whether Stereotypic Off-the-Track Thoroughbreds are Harder to Rehome Than Nonstereotypic OTTBs—A Pilot Survey Study, *Journal of Equine Veterinary Science*, 81. doi: 10.1016/j.jevs.2019.102794
- McLean, A., Varnum, A., Ali, A., Heleski, C. R., González, F. J. (2019). Comparing and contrasting knowledge on mules and hinnies as a tool to comprehend their behavior and improve their welfare, *Animals*, 9(8). doi: 10.3390/ani9080488
- Ali, A. B.A., El Sayed, M. A., McLean, A. K., Heleski, C. R. (2019). Aggression in working mules and subsequent aggressive treatment by their handlers in Egyptian brick kilns—Cause or effect?, *Journal of Veterinary Behavior*, 29, 95-101. doi: 10.1016/j.jveb.2018.05.008
- Waite, K., Heleski, C. R., Ewing, M. (2018). Quantifying aggressive riding behavior of youth barrel racers and conflict behaviors of their horses, *JOURNAL OF VETERINARY BEHAVIOR-CLINICAL APPLICATIONS AND RESEARCH*, 24, 36-41. doi: 10.1016/j.jveb.2018.01.002
   JIF: 1.554
- Hall, C., Heleski, C. R. (2017). The role of the ethogram in equitation science, APPLIED ANIMAL BEHAVIOUR SCIENCE, 190(SI), 102-110. doi: 10.1016/j.applanim.2017.02.013
   JIF: 1.771

## Magazine/Trade Publication

- Heleski, C. R. (2017). How can I solve his separation anxiety? interview and article, *Practical Horseman*.
- Heleski, C. R. (2017). Is my horse bored? interview and article, *Practical Horseman*.

## **Review**, Journal

Heleski, C. R., Stowe, C. J., Fiedler, J., Peterson, M., Brady, C., Wickens, C., MacLeod, J. N. (2020).
 Thoroughbred racehorse welfare through the lens of 'social license to operate-with an emphasis on a U.S. perspective, *Sustainability (Switzerland)*, 12(5). doi: 10.3390/su12051706

## **Presentations Given**

- Heleski C., (February 2018). Equitation Science career in equine academia Horse Chats Podcast, online forum, Lexington, Australia. International.
- Heleski C., (January 2018). Updates on equine stereotypic behaviors; also questions/answers Facebook Forum, Dr. David Marlin, Lexington, Other / Multiple Countries. Invited, International.
- Heleski C., (January 2018). Working equids in developing regions of the world, Gluck Graduatte Students, Lexington, KY. University.
- Heleski C. R., Brizgys L., Voigt M., Pfeiffer L., Brady C., (November 2017). Are views regarding show horse welfare influenced by owners' perceived locus of control? International Society for Equitation Science, ISES, Australia. Accepted, International.
- Heleski C. R., (November 2017). We shouldn't fear the conversation: a holistic, ethics-based, welfare assessment of the Thoroughbred racing industry, from foals to retirees. International Society for Equitation Science, ISES, Wagga Wagga, Australia. International.
- Heleski C. R., Ali A., Gutwein K., (June 2016). Exploring the relationship between heart rate variability and behaviour – Social isolation in horses International Society for Equitation Science, ISES, France. Accepted, International.
- Heleski C. R., Gutwein K., Ali A., (June 2016). Food anticipation in domestic horses anticipating something good or frustrated with waiting for a desired resource? International Society for Equitation Science, ISES, France. Accepted, International.

#### Facilitator

Heleski C. R., (June 2016). President's Greeting, President's Close of meeting, Conducting Annual General Meeting, Conducting Council meeting pre-conference International Society for Equitation Science, International Society for Equitation Science, Saumur, France. Invited.

#### **Invited Speaker**

Heleski C., (February 2018). Invited presentation: Welfare related issues in the Thoroughbred racing industry Progressive Equine Behavior and Training Forum, Ocala, FL, United States. Invited, National.

#### **Podium Session**

 Wilson K. M., Robin S. C., Coleman R. J., Urschel K. L., Rossano M. G., Heleski C. R., (May 25, 2021). Using assessment and curriculum mapping to enhance your undergraduate programming efforts 2021
 National Association of Equine Affiliated Academics Annual meeting, National Association of Equine Affiliated Academics, Virtual meeting. Accepted, National.

# Teaching

## Teaching

Prefix Number - Section	Credit Hours	# Enrolled	Code Term Year
ASC 220 - 001	3.00000 - 3.00000	22	10 Fall 2020-2021
ASC 220 - 201	3.00000 - 3.00000	8	10 Fall 2020-2021
ASC 333 - 004	1.00000 - 4.00000	4	10 Fall 2020-2021
ASC 395 - 007	1.00000 - 4.00000	1	10 Fall 2020-2021
EQM 305 - 001	3.00000 - 3.00000	5	10 Fall 2020-2021
EQM 305 - 002	3.00000 - 3.00000	18	10 Fall 2020-2021
EQM 305 - 201	3.00000 - 3.00000	17	10 Fall 2020-2021
EQM 305 - 202	3.00000 - 3.00000	1	10 Fall 2020-2021
EQM 490 - 001	3.00000 - 3.00000	42	10 Fall 2020-2021
ASC 395 - 017	1.00000 - 4.00000	2	50 Summer 2019-2020
ASC 395 - 009	1.00000 - 4.00000	1	30 Spring 2019-2020
EQM 305 - 001	3.00000 - 3.00000	21	30 Spring 2019-2020
EQM 305 - 002	3.00000 - 3.00000	7	30 Spring 2019-2020
EQM 490 - 001	3.00000 - 3.00000	25	30 Spring 2019-2020
EQM 490 - 002	3.00000 - 3.00000	11	30 Spring 2019-2020
ASC 220 - 001	3.00000 - 3.00000	22	10 Fall 2019-2020
ASC 333 - 004	1.00000 - 4.00000	2	10 Fall 2019-2020
ASC 395 - 007	1.00000 - 4.00000	4	10 Fall 2019-2020
EQM 305 - 001	3.00000 - 3.00000	23	10 Fall 2019-2020
EQM 305 - 002	3.00000 - 3.00000	24	10 Fall 2019-2020
EQM 490 - 001	3.00000 - 3.00000	30	10 Fall 2019-2020
ASC 333 - 701	1.00000 - 4.00000	6	30 Spring 2018-2019
EQM 101 - 001	3.00000 - 3.00000	18	30 Spring 2018-2019
EQM 301 - 001	1.00000 - 1.00000	42	30 Spring 2018-2019
EQM 305 - 001	3.00000 - 3.00000	17	30 Spring 2018-2019
EQM 305 - 002	3.00000 - 3.00000	15	30 Spring 2018-2019

ASC 333 - 003	1.00000 - 4.00000	15	10 Fall 2018-2019
ASC 333 - 005	1.00000 - 4.00000	4	10 Fall 2018-2019
EQM 101 - 001	3.00000 - 3.00000	85	10 Fall 2018-2019
EQM 300 - 003	1.00000 - 6.00000	16	10 Fall 2018-2019
EQM 305 - 001	3.00000 - 3.00000	25	10 Fall 2018-2019
EQM 305 - 002	3.00000 - 3.00000	12	10 Fall 2018-2019
GEN 109 - 210	1.00000 - 6.00000	2	50 Summer 2017-2018
ASC 395 - 003	1.00000 - 4.00000	1	30 Spring 2017-2018
EQM 101 - 001	2.00000 - 2.00000	23	30 Spring 2017-2018
EQM 106 - 001	1.00000 - 1.00000	43	30 Spring 2017-2018
EQM 300 - 004	1.00000 - 6.00000	14	30 Spring 2017-2018
EQM 301 - 001	1.00000 - 1.00000	57	30 Spring 2017-2018
ASC 310 - 001	2.00000 - 2.00000	46	10 Fall 2017-2018
ASC 333 - 005	1.00000 - 4.00000	14	10 Fall 2017-2018
ASC 333 - 006	1.00000 - 4.00000	4	10 Fall 2017-2018
EQM 106 - 001	1.00000 - 1.00000	41	10 Fall 2017-2018
EQM 300 - 003	1.00000 - 6.00000	18	10 Fall 2017-2018
ASC 395 - 021	1.00000 - 4.00000	1	52 2nd summer
			2016-2017
EQM 101 - 001	2.00000 - 2.00000	32	30 Spring 2016-2017
EQM 106 - 001	1.00000 - 1.00000	50	30 Spring 2016-2017
EQM 300 - 002	1.00000 - 6.00000	11	30 Spring 2016-2017
EQM 301 - 001	1.00000 - 1.00000	54	30 Spring 2016-2017
ASC 310 - 001	2.00000 - 2.00000	43	10 Fall 2016-2017
ASC 333 - 005	1.00000 - 4.00000	13	10 Fall 2016-2017
EQM 106 - 001	1.00000 - 1.00000	39	10 Fall 2016-2017
EQM 300 - 003	1.00000 - 6.00000	15	10 Fall 2016-2017

## **Teacher Course Evaluations**

Prefix Number - Section	Responses	TCE Course Quality Mean	TCE Teaching Quality Mean	Code Term Year
ASC 220 - 001	16	4.63	4.88	10 Fall 2020-2021
ASC 220 - 001	18	4.83	4.83	10 Fall 2019-2020
ASC 310 - 001	39	4.10	4.13	10 Fall 2017-2018
ASC 310 - 001	27	4.59	4.67	10 Fall 2016-2017
ASC 333 - 003	9	4.67	5.00	10 Fall 2018-2019
ASC 333 - 005	10	4.70	4.60	10 Fall 2017-2018
ASC 333 - 005	5	4.80	4.80	10 Fall 2016-2017
EQM 101 - 001	9	3.78	3.89	30 Spring
				2018-2019
EQM 101 - 001	46	4.30	4.33	10 Fall 2018-2019
EQM 101 - 001	15	4.53	4.47	30 Spring
				2017-2018

EQM 101 - 001	10	4.50	4.40	30 Spring
				2016-2017
EQM 106 - 001	21	3.48	3.53	30 Spring
				2017-2018
EQM 106 - 001	18	4.28	4.28	10 Fall 2017-2018
EQM 106 - 001	16	4.00	4.06	30 Spring
				2016-2017
EQM 106 - 001	15	4.20	4.27	10 Fall 2016-2017
EQM 300 - 002	6	4.67	4.83	30 Spring
				2016-2017
EQM 300 - 003	9	4.67	4.78	10 Fall 2018-2019
EQM 300 - 003	10	4.50	4.40	10 Fall 2017-2018
EQM 300 - 003	8	4.63	4.75	10 Fall 2016-2017
EQM 300 - 004	8	4.75	4.75	30 Spring
				2017-2018
EQM 301 - 001	10	4.00	4.20	30 Spring
				2018-2019
EQM 301 - 001	21	4.29	4.33	30 Spring
				2017-2018
EQM 301 - 001	21	4.24	4.05	30 Spring
				2016-2017
EQM 305 - 001	14	4.29	4.50	30 Spring
				2019-2020
EQM 305 - 001	13	4.62	4.62	10 Fall 2019-2020
EQM 305 - 001	14	4.29	4.50	30 Spring
				2018-2019
EQM 305 - 001	18	4.56	4.61	10 Fall 2018-2019
EQM 305 - 002	10	3.80	4.20	10 Fall 2020-2021
EQM 305 - 002	14	4.50	4.71	10 Fall 2019-2020
EQM 305 - 002	13	4.38	4.69	30 Spring
				2018-2019
EQM 305 - 002	7	4.71	4.57	10 Fall 2018-2019
EQM 305 - 201	12	4.08	4.50	10 Fall 2020-2021
EQM 490 - 001	34	3.74	4.33	10 Fall 2020-2021
EQM 490 - 001	19	3.61	4.39	30 Spring
				2019-2020
EQM 490 - 001	26	3.58	4.35	10 Fall 2019-2020
EQM 490 - 002	9	4.11	4.67	30 Spring
				2019-2020
		I	I	

Note: With regards to Spring 2020 TCEs please consider the following from page 121 of the UK Playbook for Fall 2020, "It is essential that performance evaluation take into account the extenuating circumstances brought about by the disruption for faculty in all title series and the extraordinary work accomplished by faculty in response to the disruption. Academic leaders shall reiterate that TCEs should be but one indicator of effective teaching in both periodic merit reviews and tenure/promotion decisions. Evaluation of teaching must go beyond student evaluations alone."

## **Theses and Dissertations**

## **Master's Thesis Committee Member**

Lauren Brizgys, Animal Science, "Locus of control and impact on welfare of working equids (horses, donkeys, mules)," Status: Degree Awarded, This is a student at Purdue University. I am serving on her committee due to my background with working equids. (Student successfully defended in the spring semester of 2018.), Colleen Brady, Melissa Voigt, Linda Pfeiffer. (November 1, 2016 - May 2018).

## **Directed Student Learning (excluding theses, dissertations)**

- Lauren Underwood. Directed Individual/Independent Study. shade seeking behavior in horses in hot weather. In-Process (May 2020 Present).
   Description: Lauren Underwood remote internship Texas shade seeking behavior in hot weather for horses
- Kassandra Rutherford. Directed Individual/Independent Study. *shade seeking behavior in horses*. (June 2020 - August 2020). Description: Kassie Rutherford - shade seeking behavior - Kentucky - hot weather
- Augusta Hosmer. Directed Individual/Independent Study. Social media commentary fallout from breakdowns in horse industry. Completed (February 2020 - April 2020).
   Description: Augusta Hosmer - social media commentary on fallout of Santa Anita horse racing scenario
- Lilly Boladian. Directed Individual/Independent Study. Social Media in Horse Racing; Sounds that horses make. Completed (January 2020 April 2020).
   Description: Lilly Boladian social media in the racing industry; also acoustic, nasal sounds made by horses
- Michaela Kemp. Directed Individual/Independent Study. . Completed (August 20, 2017). Description: student collected horse behavior data at the Thoroughbred farm where she worked; compiled an ethogram and submitted reports

## **Academic Advising**

2019-2020, 31 undergraduate students advised.

- Fall 2019-2020, 37 undergraduate students advised, meet with each advisee, each fall and spring semester, assist with class choices, scheduling assistance, how to work with Degree Audit; occasional course substitutions, career advice, internship advice, minor/2nd major help.
- 2nd summer 2017-2018, 10 undergraduate students advised, just assisted those students with specific pre-fall questions.

Spring 2017-2018, 28 undergraduate students advised, 1 graduate student advised, First semester of academic advising at UK; Equine Science and Management majors
 Also on advising committee for MS student at Purdue University.

- Fall 2017-2018, attend advising workshop meetings each semester (1/semester for ESMA; usually 1/semester for college).
- Fall 2017-2018, 41 undergraduate students advised, have now been assigned additional advisees; also assisted with 3 of the summer orientations.

## **Program and Curriculum Development**

#### 2017

Program/Curriculum Name - ESMA Equine Science and Management Description: filled out surveys related to the courses I teach, attended July 27th ESMA Curriculum mini-retreat, sub-committee meetings for Equine Anatomy, Intro Horse Science, Thoroughbred Sales

#### 2018

Program/Curriculum Name - ESMA - just starting with K Wilson and K Urschel on Outcomes Assessment working group

#### 2019

Program/Curriculum Name - ESMA Curriculum Committee Subcommittee: Assessment Outcomes Committee Description: Meetings Develop materials, rubrics, EEQ project

#### 2020

Program/Curriculum Name - ESMA Curriculum Committee Outcomes Assessment Committee Description: Meetings Develop materials Begin documenting outcomes

## **Other Credit and Non-Credit Instructional Activities**

Animal Welfare Judging Team, (November 13, 2017) Description: offered during this pilot year as an extracurricular activity involving weekly practice sessions and attending the competition at Ohio State University

#### Seminar

working equids in developing regions of the world, (September 2017)

Description: gave a 50 min presentation on working equids to Dr. Bewley's and Dr. Costa's graduate students and had a Q & A session

Understanding Equitation Science, Participants: 35, (June 2017) Description: 3 talks related to equitation science, horse behavior and horse welfare

(November 2016)

Description: presented a 50 min presentation related to my research in the areas of horse behavior and welfare

#### Summer Student Project

Thoroughbred Behavior, (August 30, 2017)

Description: collected focus group information related to off the track Thoroughbreds and the likelihood of them to have abnormal behaviors (e.g. cribbing); survey has been designed - not yet implemented

#### Workshop

How to understand horses better, Participants: 40, (June 2017) Description: A presentation to riding lesson students and their parents

Participants: 50, (June 2017)

Description: Helping riders at the military base, graduate students with an equine interest and other high-interest trainers in the area learn more about horse behavior and welfare

## Service

## **Department Service**

ESMA - recruiting efforts

e.g. Land Rover competition, Retired Racehorse project, Equestricon, (2017 - Present). Committee Member

ESMA Internship Coordinator Selection Committee, (September 2017 - Present).

ESMA Curriculum Committee, (August 2017 - Present). Faculty representative Intercultural Awareness Day

summary to department at faculty meeting, (February 2018).

## **College Service**

## **Committee Member**

CAFE Education Abroad Committee, (July 1, 2017 - Present).

## **Professional Service**

## **Committee Member**

- ROAP Racing Officials Accreditation Program, also ROAP Education Committee, (May 2018 Present).
- International Society for Equitation Science, Council Member Senior Vice President (term completed) Now Honorary Fellow and Trustee

Scientific Committee - Abstract Reviewer

, (2015 - Present).

## Judge

State 4-H Competition, Public Speaking Division, (November 2016).

## **Professional Development**

#### **Professional Memberships**

National Association of Equine Affiliated Academics. National. (2010 - Present).

International Society for Equitation Science. International. (2007 - Present).

International Society for Applied Ethology. International. (1998 - Present).

Equine Science Society. International. (1988 - Present).

### **Development Activities Attended**

#### **Conference Attendance**

International Society for Equitation Science, Virtual conference. (August 13, 2020 - August 15, 2020). Hartpury University, United Kingdom. International. United Kingdom. horse behavior, horse welfare, horse-human interaction

Agency and the Sport Horse - Lisa Ashton, England. (June 2020 - July 2020). International. United Kingdom.

does the horse have agency? sustainability and social license in horse sports

United Kingdom Equine Science Student Conference - virtual. (July 15, 2020). Hartpury University. International. United Kingdom.

Graduate students in the United Kingdom (& other countries) - many found themselves without a "home" in 2020 to present their research, so this virtual conference was arranged. Most topics were: horse behavior, horse welfare, horse-human interaction, equine/rider biomechanics

Proyecto Caballo (online equine welfare conference); discussion of affective states in horses.
 (May 25, 2020 - June 7, 2020). International.
 seminars and workshop discussions on sustainable horse keeping, affective states in horses, how to enhance horse welfare

Progressive Equine Behavior and Training Forum (face to face). (February 28, 2020 - March 1, 2020). PEBTF. National. Orlando, FL, United States.
last face to face professional development opportunity of 2020 (for me)
Presentations on horse behavior, horse training, horse welfare, horse-human interactions.
Myself and Carissa Wickens presented on social license to operate

International Society for Applied Ethology (ISAE). (July 31, 2018). International. Prince Edward Island, Canada.

international presentations on animal behavior and welfare (multi species); I was also on the abstract review team; also helped present materials during the Animal Welfare Judging Team workshop

Race Horse Safety & Welfare Summit. (June 2018). The Jockey Club and The Grayson Foundation. International. Lexington.

Progressive Equine Behavior and Training Forum. (February 2018). National. Ocala, FL. inaugural forum with 40 invited participants/speakers to discuss equine behavior and welfare issues

National Association of Equine Affiliated Academics. (June 9, 2017). NAEAA. Centenary, NJ, United States.

topics related to teaching in collegiate equine programs including outcomes assessments and program reviews; I also presented one of the mini workshops on the Animal Welfare Judging contest

International Society for Applied Ethology. (July 10, 2016 - July 17, 2016). ISAE. International. Edinburgh, United Kingdom.

conference on multi species animal behavior and animal welfare; also attended workshop on Measuring Animal Emotions Race Horse Safety & Welfare Summit. (June 28, 2016). Keeneland. National. Lexington, KY, United States.

various stakeholders brought together to discuss hot button issues in the horse racing industry

International Society for Equitation Science (conference on horse behavior and welfare). (June 22, 2016 - June 26, 2016). International Society for Equitation Science. International. Saumur, France.

President of ISES, welcome message and closing message, led Council meeting and Annual General Meeting; scientific review committee of abstracts; attending all presentations

## **Continuing Education Program**

Racetrack Stewards CEU program. (June 2018). ROAP - racing officials accreditation program. National. KY.

racetrack rules and points of emphasis, drug/medication rules, horse welfare issues, e.g. whip use

- The Right Horse presentation. (February 2018). KENA. Regional. Lexington, KY, United States. matching horses who need a second home with appropriate people
- Pastures Please Extension Program. (January 22, 2018). Regional. Lexington region, KY, United States.

presentations on pasture management for horses; weed control; preferred forages

Driving Horses 101. (December 2017). Kentucky Horse Park. State. Lexington, KY. learning more about driving and harnessing horses

## Self-Study Program

Egypt - working equids and PhD defense. (March 2016). Cairo University. Cairo, Egypt. attended PhD defense of my visiting scholar from Egypt, Ahmed Ali; also worked with several colleagues at the Donkey Sanctuary, Cairo to learn more about working equids, particularly those in the brick kilns

#### Seminar

attended several Diversity, Equity, Inclusivity seminars/webinars during summer 2020 (mainly University of Kentucky organized). (May 2020 - October 2020). CELT and CAFE. National. Lexington.

in light of the national racial reckoning that became more noticeable this spring/summer/fall, I made a point of attending several DEI webinars that were being held to enhance awareness

Wild Horse Management - Humane Horse Handling - 3 online webinars. (May 2020 - July 2020). Dr Sarah Low and Dr Sue McDonnell. National. Other / Multiple Countries. wild horse behavior; wild horse management; new contraceptive methods for WHM

- Welfare and Safety of the Race Horse virtual seminars. (May 2020 June 2020). Grayson and Jockey Club. National. Lexington. track surfaces, racing sustainability, common injuries
- Coaching webinar for the Animal Welfare Judging & Assessment competition. (August 2018). AVMA. International. United States.
- Unconscious Bias Training. (July 2017). UK CAFE. College.
- CELT workshop enhancing your PowerPoint presentations. (October 2016). UK CELT. University.
- CELT workshop teaching across different levels of academic preparedness. (September 2016). UK CELT. University.

## Workshop

- Enhancing virtual/online/hybrid teaching in response to COVID-19 changes. (March 2020 October 2020). University of Kentucky. Regional. Lexington, KY.
   Throughout spring, summer, fall of 2020, I attended several webinars/Zoom meetings per month related to enhancing teaching in virtual and hybrid offerings, learning more about Zoom, YuJa, etc. providing captioning meeting student needs during the pandemic induced changes etc
- Teaching Workshops in CAFE led by Dr. Agouridis, following chapters in the "Teaching College" book. (January 2020 March 2020). CAFE. Lexington.
- Team Building/Strengthening exercises for Equine Programs Group. (January 2020). UK Equine Programs. Department. Lexington. campus led workshops on strengths finder documents and team building for Equine Programs

## CELT mid-semester teaching assessment and feedback

CELT mid-semester teaching assessment and feedback. (October 26, 2016). CELT - UK. State. Lexington, KY, United States.

CELT (Center for the Enhancement of Learning & Teaching) offered mid-semester feedback and subsequent consultation to new faculty

# Dr. Steven G. Isaacs

College of Agriculture, Food and Environment Department of Agricultural Economics 2016-2022 CV

## Education

PhD, University of Tennessee-Knoxville, 1992. Major: Agricultural Economics

BS, University of Tennessee-Knoxville, 1976. Major: Agricultural Economics

## **Administrative Assignments**

Co-Director of Kentucky Agricultural Leadership Program. 2006 - Present

Responsibilities: Dr. Will Snell and I co-direct KALP, a leadership program for individuals in farming and agribusiness. Two year classes consist of 6-7 in-state seminars, an international, and out-of-state learning journeys.

## **Research and Scholarship**

## **Sponsored Projects**

#### Awarded

Teutsch C., Bullock K., D., Halich G., S., Henning J., C., Lehmkuhler J., W., Burdine K., H., VanValin K., R., Anderson L., H., Isaacs S., G., Smith S., R., Kentucky Beef Network 2021, Sponsored by Kentucky Beef Network Submitted: February 9, 2021. Funding Dates: February 17, 2021 - December 31, 2022. | Awarded: \$235,100.00
OSPA ID: 202102091324

#### Closed

- Hunter J., L., Isaacs S., G., Managing for Today and Tomorrow: Risk Management Education for Kentucky Farm Families, Sponsored by University of Arkansas Submitted: November 12, 2014. Funding Dates: April 1, 2015 - September 30, 2016. | Awarded: \$49,136.00
  OSPA ID: 201411121407
- Mannino D., M., Anyaegbunam C., M., Browning S., R., Chesnut L., Clouser J., M., Hains B., J., Isaacs S., G., Mazur J., Purschwitz M., A., Reed D., B., Sanderson W., T., Stone R., F., Swan G., M., Vincent S., K., Southeast Center for Agricultural Health and Injury Prevention, Sponsored by National Institute of Occupational Safety and Health Submitted: April 4, 2013. Funding Dates: September 30, 2001 - September 29, 2016. | Awarded: \$1,605,653.00 OSPA ID: 201304042019
- Mannino D., M., Anyaegbunam C., M., Chesnut L., Hains B., J., Isaacs S., G., Mazur J., Purschwitz M., A., Reed D., B., Sanderson W., T., Stone R., F., Swan G., M., Swan K., Swanberg J., E., Vincent S., K., Southeast Center for Agricultural Health and Injury Prevention: Admin Core, Sponsored by National Institute of Occupational Safety and Health Submitted: May 30, 2012. Funding Dates: September 30, 2001 September 29, 2016. | Awarded: \$1,508,705.00 OSPA ID: 201205301535

McKnight R., H., Anyaegbunam C., M., Chesnut L., Hains B., J., Isaacs S., G., Mazur J., Purschwitz M., A., Reed D., B., Sanderson W., T., Stone R., F., Swan G., M., Swan K., Swanberg J., E., Vincent S., K., Southeast Center for Agricultural Health and Injury Prevention: Admin Core, Sponsored by National Institute of Occupational Safety and Health Submitted: May 30, 2012. Funding Dates: September 30, 2001 - September 29, 2016. | Awarded: \$1,508,705.00 OSPA ID: 201205301535

## **Scope Grants**

## Awarded

Halich G., S., Burdine K., H., Isaacs S., G., Kentucky Beef Network 2021- Backgrounding Profitability Conferences, Sponsored by Kentucky Beef Network Submitted: March 23, 2021.
Funding Dates: February 17, 2021 - December 31, 2022. | Current Budget Amount: \$11,000.00

Prime Grant OSPA ID: 202102091324

Halich G., S., Burdine K., H., Isaacs S., G., Kentucky Beef Network 2021- Beef Business
Development for Young/New Producers, Sponsored by Kentucky Beef Network Submitted:
March 23, 2021. Funding Dates: February 17, 2021 - December 31, 2022. | Current Budget
Amount: \$19,000.00

Prime Grant OSPA ID: 202102091324

## **Non-Sponsored Projects**

#### Industrial/Trade

## On-going

Isaacs, S. G. (Principal), UK Income Tax Seminars, Participant fees, (January 1, 2018 - December 31, 2018). Awarded: \$575000.

Description: Gross revenue from fifteen 2-day and four 1-day seminar from 2,100 participants. Staff, materials, travel, instructors, and venue costs are paid from gross revenues.

Isaacs, S. G. (Principal), UK Income Tax Seminars, Participant fees, (January 1, 2017 - December 31, 2017). Awarded: \$475000.

Description: Gross revenues from 1,507 participant fees. Staffing, travel, instructors, teaching materials, and vendor fees are paid from the gross revenues

## Other

## On-going

 Snell, W. M. (Co-Principal), Isaacs, S. G. (Co-Principal), Kentucky Agricultural Leadership Program, Various, (January 1, 2019 - December 31, 2020). Awarded: \$395532.
 Description: Funding awarded for 2019-2020 from farm organizations, agribusinesses, alumni and other supporters of KALP

Snell, W. M. (Co-Principal), Isaacs, S. G. (Co-Principal), Kentucky Agricultural Leadership

Program, Various, (January 1, 2017 - Present). Awarded: \$583834. Description: Funding awarded from the Kentucky Agricultural Development Board, farm organizations, agribusinesses, alumni and other supporters

## **Presentations Given**

#### **Invited Speaker**

Siebel M., Brown E., Isaacs S. G., (October 22, 2020). Using Kirton Adaptation-Innovation cognitive style indicator in Ag Leadership Programming Annual meeting of IAPAL, International Association of Program for Agricultural Leadership. Invited, International.

## **Extension**

#### **Extension Publications & Media**

\* = Senior Author ~ = Corresponding Author + = Grad/Prof Student # = Post Doc ^ = Undergraduate

## Published

#### Peer-Reviewed

#### **Extension Publication- Numbered, Revised Content**

Teutsch, C., Bullock, K. D., Rentfrow, G. K., \* Lehmkuhler, J. W., Henning, J. C., VanValin, K. R., Burdine, K. H., Anderson, L. H., Arnold, L. M., Vijayakumar, P. P., Smith, S. R., Isaacs, S. G. (2021). ID-108 The Beef Book, 2021 Lexington, KY, University of Kentucky Agricultural Communications Service, 164.

## Non Peer-Reviewed

#### **Extension Publication- Non-numbered, Original Content**

+ Shepherd, J. D., Shockley, J. M., Davis, T. D., Halich, G. S., Davis, A. F., Isaacs, S. G., Pierce, J., Bowker, S., Burdine, K. H. (2019). Resources Available to Farmers Struggling with Farm Financial Stress, *University of Kentucky Department of Agricultural Economics*.

#### **Extension Education & Training Programs**

#### **County Agent In-Service Training**

*Invited speaker*. Economic Subject Matter. (January 10, 2020 - January 14, 2020). Scope: State. Participants: 75 County agents/ specialists.

Description: Annual inservice training for ANR and Hort Agents. Three locations across state. **Task force member**. 2019 Economic Subject Matter Training. (January 3, 2019 - January 11,

2019). Scope: State. Counties: 60. Participants: 60 County agents/ specialists.

Description: Ag Econ Extension Faculty. State-wide economic update and decision aids. three locations: Hopkins, Adair, and Clark counties

Program organizer. 2018 Economic Subject Matter Training. (January 3, 2018 - January 5, 2018). Scope: State. Counties: 60. Participants: 150 County agents/ specialists. Description: Annual economic update and outlook

Program organizer. 2017 Economic Subject Matter Training. (January 11, 2017 - January 13, 2017). Scope: State. Counties: 60. Participants: 150 County agents/ specialists. Description: Annual economic update and outlook for agents

## **County Office Presentation**

*Invited speaker*. Ten Traits of Top Managers. (October 17, 2019). Scope: County. Participants: 50 Industry professionals.

Description: Hardin County Cattleman's Association

## **Extension Leader Lesson**

*Keynote speaker*. Extension Motivation. (October 26, 2020). Scope: State. Participants: 75 County agents/ specialists.

Description: Kickoff speaker for the annual meeting of Southwest Virginia Extension agent's conference. Topic was Extension in Appalachia and Finding Motivation

## Farm Visit or Consultation

**Program organizer**. Leadership development. (December 9, 2019). Scope: Multi-state. States: 2. Participants: 2 Industry professionals.

Description: Consulting with Kirby Player re development of an Ag leadership Program in South Carolina

*Invited speaker*. Transition Planning. (October 26, 2018). Scope: State. Participants: 6 Industry professionals.

Description: Consultation with Walnut Grove Farm owners

### **Multi-County Presentation**

*Invited speaker*. Managing in Uncertain Times. (February 25, 2020). Counties: 26. Interest group members.

Description: Invited topical speaker at KDDC Annual Convention

*Invited speaker*. Management Skills. (December 16, 2019). Scope: Multi-county. Counties: 5. Participants: 45 Interest group members.

Description: Live presentation that was recorded for use for additional Master Cattleman certification

- Program organizer. 2018-19 Lenders Conferences. (December 12, 2018 January 31, 2019).
   Scope: State. Counties: 60. Participants: 200 Industry professionals.
   Description: Henderson, Graves, Christian, and Fayette County offices. Annual economic updates and outlook targeted toward ag lending community
- **Program organizer**. 2017-18 Lenders Conferences. (December 14, 2017 January 30, 2018). Scope: State. Counties: 60. Participants: 200 Industry professionals.

Description: Annual economic updates and outlook targeted toward ag lending community Multi-modal Program (describe in description box)

**Program organizer**. Farm Family Stress Webinar Series. (July 23, 2020 - August 13, 2020). Scope: State. Participants: 110 General public.

Description: A 4-session Webinar series featuring multi-discipline presentations: ag econ,

finance, nursing. Delivered on four Thursday evenings in late July and early August. Nationally known speaker on economic issues, Dr. Dave Kohl, VA Tech (emeritus)

*Program organizer*. Great Teachers on Great Topics. (June 10, 2020). Participants: 121 General public.

Description: Asked by UKAA and Provost to host a webinar in a series featuring Great Teacher Award winners. Tammy Stephenson (FCS and also Great Teacher winner) and I organized and delivered a nationally promoted webinar on impact of COVID on food supply chain.

## **Other Extension Presentation**

*Program organizer*. Ag and COVID. (May 7, 2020). Scope: State. Participants: 42 Interest group members.

Description: First attempt with a Zoom panel presentation to KALP Alumni. Panelists from commodity groups, ag credit, and FSA

Program organizer. Ag Econ Graduate Student and Faculty In-state tour. (May 29, 2019 - May 31, 2019). Scope: State. Participants: 11 University students.

Description: UK Ag Econ Department. Annual in-state farm and agribusiness tour. 2019 was to Hopkinsville-Bowling Green area

- Program organizer. 2018 Extension Faculty and Grad Student Tour. (June 18, 2018 June 19, 2018). Scope: Multi-county. Counties: 5. Participants: 15 University students.
   Description: Annual in-state tour for graduate students and AEC faculty to study KY farming and agribusiness
- Program organizer. 2017 Extension Faculty and Grad Student Tour. (May 10, 2017 May 12, 2017). Scope: Multi-county. Counties: 6. Participants: 20 University students.
   Description: Annual in-state tour for graduate students and AEC faculty to study KY farming and agribusiness

## Seminar

**Program organizer**. Income Tax Continuing Education. (November 10, 2020 - December 11, 2020). Scope: State. Participants: 1025 Industry professionals.

Description: Three 4-day webinars and one 2-day webinar for income tax professionals to meet continuing education requirements. Webinars consisted of 16 total hours of income tax education utilizing nine instructors. I direct the program and work with two UK program coordinators to organize and deliver the seminars

Program organizer. KALP Webinar on global ag issues. (December 7, 2020). Scope: Multi-state.
 States: 2. Participants: 25 Interest group members.
 Description: Webinar featuring Mary Shelman, agribusiness consultant and former director of Harvard Agribusiness program.

**Program organizer**. Impact of COVID on Ag. (October 9, 2020). Scope: Multi-state. States: 2. Participants: 22 Interest group members.

Description: Zoom with KALP Class 12 featuring Dr. Dave Kohl, internationally know ag economist on the state of ag in COVID era and leadership opportunities for the future

**Program organizer**. Diversity and inclusion in agriculture. (June 18, 2020). Scope: Multi-state. States: 2. Participants: 22.

Description: Facilitated class discussion via Zoom with Mich State Univ Associate Dean for Diversity, Quentin Tyler on issues around diversity in ag and broader issues of social justice.

**Program organizer**. KALP Domestic Study Tour. (January 23, 2020 - January 28, 2020). Scope: Multi-state. States: 2. Participants: 22 Interest group members. Description: Out-of-state learning journey to witness ag issues and leadership in the Florida agricultural community. Six day trip with 25+ site visits

*Invited speaker*. Farm strategic planning and personality assessment. (January 21, 2020 - January 22, 2020). Scope: Multi-county. Counties: 15. Participants: 24 Interest group members.

Description: Planning and KAI assessment for KyCGA CORE group

**Program organizer**. Leadership development. (December 18, 2019 - December 20, 2019). Scope: Multi-state. States: 2. Interest group members.

Description: Owensboro seminar of KALP 12, trade and policy issues

*Facilitator*. Income tax education. (December 10, 2019 - December 12, 2019). Scope: State. Participants: 65 Industry professionals.

Description: Somerset 2-day seminar for continuing education for income tax preparers

*Facilitator*. Income tax education. (December 2, 2019 - December 4, 2019). Scope: State. Participants: 95 Industry professionals.

Description: Bowling Green 2-day seminar for continuing education for income tax preparers

*Task force chair*. Income tax education. (November 19, 2019 - November 21, 2019). Scope: State. Participants: 55 Industry professionals.

Description: Elizabethtown continuing education for income tax preparers

- *Facilitator*. Income tax education. (November 17, 2019 November 19, 2019). Scope: State. Participants: 190 Industry professionals.
- Description: Louisville 2-day seminar for continuing education for income tax preparers *Facilitator*. Income tax education. (November 6, 2019 November 8, 2019). Scope: State.

Participants: 45 Industry professionals.

Description: Pikeville 2-day seminar for continuing education for income tax preparers

*Program organizer*. Income tax education. (October 28, 2019 - October 30, 2019). Scope: State. Industry professionals.

Description: Initial dry run with all instructors of the 2019 income tax seminars

- **Program organizer**. Leadership Development. (October 22, 2019 October 25, 2019). Scope: Multi-state. States: 2. Participants: 22 Interest group members. Description: W Ky seminar of the KALP Class 12
- *Facilitator*. Income tax preparation CE. (August 16, 2019). Scope: State. Participants: 45. Description: One-day topical continuing education for income tax preparers

Facilitator. Income tax preparation CE. (August 9, 2019). Scope: State.

Description: One-day topical continuing education for income tax preparers

**Program organizer**. Income Tax Education. (August 1, 2019). Scope: State. Participants: 55 Industry professionals.

Description: One-day topical continuing education for income tax preparers

*Facilitator*. Leadership development. (July 15, 2019 - July 18, 2019). Scope: Multi-state. States: 2. Participants: 22.

Description: E KY KALP Seminar

*Invited speaker*. SMART Goals for Success. (June 25, 2019). Scope: State. Participants: 10 Interest group members.

**Program organizer**. Leadership Development. (March 25, 2019 - March 28, 2019). Scope: International. Participants: 9 Interest group members.

Description: Nuffield Global Ag Scholars. Second time to host Nuffield Ag Scholars for a portion of their global travel experience

*Invited speaker*. Leadership Development. (March 21, 2019 - March 23, 2019). Scope: Multi-state. States: 4. Participants: 20 Industry professionals. Description: Ag First Farm Credit. Leadership for farmers weekend seminar

**Program organizer**. Leadership Development. (March 11, 2019 - March 13, 2019). Scope: Multi-state. States: 2. Participants: 25 Interest group members.

Description: KY Ag Leadership Program. KALP Class 12, Seminar 4, Louisville, Ag Policy **Program organizer**. Leadership Development. (February 6, 2019 - February 8, 2019). Scope: Multi-state. States: 2. Participants: 25 Interest group members. Description: Ky Ag Leadership Program. KALP Class 12 Seminar #3, Frankfort, State

government

Program organizer. Income tax education. (January 23, 2019). Scope: State. Participants: 15. Description: UK Income Tax Seminar Program. Annual Tax Seminar wrap-up meeting. 1705 registrants

**Program organizer**. 2018 Income Tax Seminars. (August 14, 2018 - January 4, 2019). Scope: State. Counties: 120. Participants: 2100 Industry professionals.

Description: Partner with Internal Revenue Service, KY Dept of Revenue, and KY Farm Business Mgt Program. Continuing education in state and federal income tax subject matter for tax preparation professionals. Delivered in fifteteen, 2-day and four 1-day seminars from Pikeville to Paducah.

*Invited speaker*. Ten Traits of Top Managers. (January 1, 2017 - December 31, 2018). Scope: State. Participants: 250 Interest group members.

**Program organizer**. Leadership Development. (December 17, 2018 - December 19, 2018). Scope: Multi-state. States: 2. Participants: 25 Industry professionals. Description: Seminar #2 of KALP Class 12, personality assessments

*Facilitator*. Income tax education. (December 11, 2018 - December 13, 2018). Scope: State. Participants: 171 Industry professionals.

Description: Tax education and continuing education credit for tax preparation professionals - Lexington Downtown seminar

*Facilitator*. Income tax education. (December 9, 2018 - December 11, 2018). Scope: State. Participants: 178 Industry professionals.

Description: Tax education and continuing education credit for tax preparation professionals - Louisville seminar #2

*Facilitator*. Income tax education. (December 4, 2018 - December 6, 2018). Scope: State. Participants: 108 Industry professionals.

Description: Tax education and continuing education credit for tax preparation professionals - Owensboro seminar

*Facilitator*. Income Tax Education. (November 27, 2018 - November 29, 2018). Scope: State. Participants: 121 Industry professionals.

Description: Tax education and continuing education credit for tax preparation professionals - Burlington seminar

*Facilitator*. Income Tax Education. (November 12, 2018 - November 14, 2018). Scope: State. Participants: 115 Industry professionals.

Description: Tax education and continuing education credit for tax preparation professionals - Paducah seminar

*Facilitator*. Income Tax Seminar. (November 9, 2018). Scope: State. Participants: 138 Industry professionals.

Description:

Tax education and continuing education credit for tax preparation professionals - Louisville seminar

- *Facilitator*. Income Tax Seminar. (November 6, 2018 November 8, 2018). Scope: State. Participants: 51 Industry professionals.
  - Description: Tax education and continuing education credit for tax preparation professionals Pikeville seminar
- *Facilitator*. Leadership Development. (October 29, 2018 October 31, 2018). Scope: Multi-state. States: 2. Participants: 25.

Description: Opening seminar of KALP Class 12

*Keynote speaker*. Leading with Storytelling. (May 8, 2018). Scope: State. Participants: 591 Interest group members.

Description: Keynote address for the state Extension Homemakers

*Invited speaker*. Employee Motivation. (January 15, 2018). Scope: Multi-county. Counties: 7. Participants: 75 Industry professionals.

Description: Why motivating people doesn't work and what does. Presentation at annual meeting of the JPEC.

 Program organizer. 2017 Income Tax Seminars. (November 6, 2017 - January 5, 2018). Scope: State. Counties: 120. Participants: 1507 Industry professionals.
 Description: Continuing education in state and federal income tax subject matter for tax preparation professionals. Delivered in sixteen, 2-day seminars from Pikeville to Paducah.

2017 International Leadership Alumni Conference. (October 15, 2017 - October 19, 2017). Scope: International. Participants: 75 Interest group members. Description: Hosted the International Leadership Alumni annual conference for alumni of ag leadership development programs worldwide. Participants from U.S., Canada, Scotland, Australia

*Keynote speaker*. Leading with Storytelling. (June 26, 2017). Scope: State. Interest group members.

Description: Luncheon speaker for American Private Enterprise Seminar state meeting *Invited speaker*. SMART Goals for Success. (June 26, 2017). Scope: State. Participants: 15 Interest group members.

Description: Goal setting seminar for KY Youth seminar

**Program organizer**. Nuffield Global Focus Program. (March 31, 2017 - April 6, 2017). Scope: International. Participants: 12 Interest group members.

Description: Hosted one week of the eight week GFP program for visiting Nuffield Scholars from Australia, New Zealand, Ireland, Netherlands, Wales, Belgium

## Workshop

*Committee member*. KY Ag Lenders Conference. (December 16, 2020). Scope: State. Participants: 45 Industry professionals.

Description: Annual Ag Lenders Conferences presented by UK Ag Econ Extension Faculty. Typically delivered at four locations statewide. This year...a webinar.

**Program organizer**. Income tax seminar 2019 planning meeting. (October 16, 2019). Scope: State. Participants: 12 Industry professionals.

Description: Meeting with instructors and institutional partners (IRS, Ky DOR, KFBM) to plan 2019 tax seminar season

Panelist or round-table participant. Leading Leadership Development. (October 7, 2019 -October 10, 2019). Scope: International. Participants: 65 Interest group members. Description: Annual meeting of directors of Ag Leadership programs like KALP *Workshop leader*. KAI results and implications. (August 8, 2019). Scope: State. Participants: 25 Industry professionals.

Description: Assessment of Kirton Adaption-Innovation style indicator for KySGGA Board

**Program organizer**. Alumni activity planning. (January 9, 2019). Scope: State. Participants: 15 Interest group members.

Description: KY Ag Leadership Program. Planning meeting with representatives of previous PM/KALP classes

*Invited speaker*. Transition and Succession Planning. (January 1, 2017 - December 31, 2018). Scope: State. Participants: 300 General public.

Description: Transition and succession planning for farm family businesses

*Facilitator*. Annual Planning Meeting. (October 17, 2018). Scope: State. Participants: 12 Industry professionals.

Description: Planning meeting with instructors for 2018 tax seminar season

*Facilitator*. Facilitation of Strategic Planning Efforts. (January 20, 2017 - September 28, 2018). Scope: State. Participants: 40 Interest group members.

Description: Facilitated strategic planning workshops for KY Corn Growers (4 days) and Council for Burley Tobacco (2 days)

*Invited speaker*. Management and budgeting. (January 23, 2017 - January 25, 2017). Scope: State. Counties: 20. Participants: 25 Industry professionals.

Description: Management and enterprise budgeting of KYCGA's leadership development program

 Invited speaker. Human Resource Management. (January 16, 2017 - January 18, 2017). Scope: Multi-county. Counties: 2. Participants: 50 Industry professionals.
 Description: HR training for middle management of the Godolphin Racing group of farms

# Program and Curriculum Development 2020

Program/Curriculum Name - UK Income Tax Seminar Program

Description: Produced video presentations, intro, and transition videos for UKITS Webinars. Eight instructors recorded sixteen hours of video Oct 19-21 in Louisville. Professional videographer, Scott Moore, recorded and edited the videos for delivery in four multi-part webinars. Webinars delivered in Nov-Dec to 1,025 tax practitioners for Continuing Education credit.

## **Extension Related Consulting**

- Academic, Patricia Wagner, University of Wisconsin, WI, United States. (November 5, 2020). Description: Dr. Wagner requested an consultation with Dr Milligan and me to discuss emerging trends in Extension Farm Management applied research and extension programming
- Business and Industry, Farm Credit University, United States. (October 22, 2020). Description: Delivered one hour of management and motivation material to beginning ag lenders from all over U.S. via webinar.
- Academic, UK chapter of AGR Fraternity, Lexington, KY, United States. (August 28, 2020 August 29, 2020).

Description: Met with Board and student leadership to evaluate status and plan for the future of the fraternity

- Business and Industry, Farm Credit University and Ag First Farm Credit Assn, Charlotte, NC, United States. (February 27, 2020 - February 28, 2020). Description: Taught multiple leadership development topics to group from VA and Carolinas
- Business and Industry, Clemson University, Clemson, SC, United States. (May 19, 2019 May 23, 2019).

Description: Assist in organization and delivery of SEALS.

- Business and Industry, Farm Credit University, Charlotte, NC, United States. (May 8, 2019 May 9, 2019).
- Business and Industry, Farm Credit of the Virginias, Lexington, VA, United States. (March 27, 2019 March 28, 2019).
   Description: Multiple sessions on farm and financial management
- Business and Industry, Farm Credit University and Ag First Farm Credit Assn, Charlotte, NC. (March 21, 2019 - March 23, 2019).
   Description: Lead and teach multiple sessions
- Business and Industry, Farm Credit University, AgFirst Farm Credit Assn, Charlotte, NC. (October 18, 2018).

Description: Provide instruction for Farm Credit System staff members and commercial ag lenders. Attendees are from FCS associations across the nation

- Business and Industry, TN Farm Bureau, Columbia, TN. (July 20, 2018 July 21, 2018). Description: Addressed leadership transition planning for county presidents and management in risky times for young farmers conference
- Academic, Southeastern Ag Lenders School, Clemson University, Clemson, SC. (May 20, 2018 -May 25, 2018).
   Description: Serve as co-organizer and instructor for Southeastern Ag Lenders school
- Academic, Farm Credit University, AgFirst Farm Credit Assn, Charlotte, NC. (May 15, 2018). Description: Provide instruction for Farm Credit System staff members and commercial ag lenders. Attendees are from FCS associations across the nation
- Academic, MidSouth School of Advanced Ag Lending, University of Tennessee-Martin, Martin, TN. (August 10, 2017).Description: Instructor and conference panelist for regional ag lenders conference
- Academic, Southeastern Ag Lenders School, Clemson University, Clemson, SC. (May 21, 2017 -May 26, 2017).

Description: Serve as co-organizer and instructor for Southeastern Ag Lenders school

## Extension Media Summary

Type of Media	Dates	Faculty Member's Role	Description	Evidence of Reach
Electronic Newsletter	January 1, 2018 - December 31, 2020	Contributor	Departmental Economic and Policy Update	
Recorded video presentations for Income Tax Seminars	October 19, 2020 - December 11, 2020	Editor/Co-Editor	Recorded 16 hours of content plus intro and transition videos for the 2020 UK Income Tax Seminars. This provided professional tax preparers sixteen hours of continuing education. Purchased and utilized a 500-seat Zoom Webinar platform.	1.025 attendees in three 4-day and one 2-day seminars
Newsletter	January 1, 2017 - December 31, 2018	Contributor	Monthly publication of the Department of Agricultural Economics	500 direct recipients with subsequent distribution by county extension agents and medial outlets in the thousands

# Teaching

# Teaching

Prefix Number - Section	Credit Hours	# Enrolled	Code Term Year
AEC 395 - 011	1.00000 - 3.00000	1	50 Summer 2020-2021
AEC 399 - 012	1.00000 - 6.00000	3	50 Summer 2020-2021
AEC 302 - 001	4.00000 - 4.00000	15	30 Spring 2020-2021
AEC 302 - 002	4.00000 - 4.00000	16	30 Spring 2020-2021
AEC 302 - 003	4.00000 - 4.00000	15	30 Spring 2020-2021
AEC 302 - 005	4.00000 - 4.00000	3	30 Spring 2020-2021
AEC 340 - 001	3.00000 - 3.00000	47	30 Spring 2020-2021
AEC 395 - 003	1.00000 - 3.00000	1	10 Fall 2020-2021
AEC 399 - 005	1.00000 - 6.00000	2	10 Fall 2020-2021
AEC 399 - 013	1.00000 - 6.00000	1	50 Summer 2019-2020
AEC 302 - 001	4.00000 - 4.00000	27	30 Spring 2019-2020
AEC 302 - 002	4.00000 - 4.00000	23	30 Spring 2019-2020

AEC 302 - 003	4.00000 - 4.00000	31	30 Spring 2019-2020
AEC 340 - 001	3.00000 - 3.00000	44	30 Spring 2019-2020
AEC 302 - 001	4.00000 - 4.00000	22	30 Spring 2018-2019
AEC 302 - 002	4.00000 - 4.00000	25	30 Spring 2018-2019
AEC 302 - 003	4.00000 - 4.00000	21	30 Spring 2018-2019
AEC 340 - 001	3.00000 - 3.00000	42	30 Spring 2018-2019
AEC 399 - 009	1.00000 - 6.00000	1	30 Spring 2018-2019
AEC 399 - 010	1.00000 - 6.00000	1	10 Fall 2018-2019
AEC 399 - 014	1.00000 - 6.00000	2	50 Summer 2017-2018
AEC 302 - 001	4.00000 - 4.00000	25	30 Spring 2017-2018
AEC 302 - 002	4.00000 - 4.00000	23	30 Spring 2017-2018
AEC 302 - 003	4.00000 - 4.00000	19	30 Spring 2017-2018
AEC 340 - 001	3.00000 - 3.00000	41	30 Spring 2017-2018
AEC 302 - 001	4.00000 - 4.00000	23	30 Spring 2016-2017
AEC 302 - 002	4.00000 - 4.00000	21	30 Spring 2016-2017
AEC 302 - 003	4.00000 - 4.00000	21	30 Spring 2016-2017
AEC 340 - 001	3.00000 - 3.00000	38	30 Spring 2016-2017
AEC 399 - 010	1.00000 - 6.00000	1	51 1st summer
			2015-2016
AEC 302 - 001	4.00000 - 4.00000	25	30 Spring 2015-2016
AEC 302 - 002	4.00000 - 4.00000	20	30 Spring 2015-2016
AEC 302 - 003	4.00000 - 4.00000	23	30 Spring 2015-2016
AEC 340 - 001	3.00000 - 3.00000	39	30 Spring 2015-2016

### **Teacher Course Evaluations**

Prefix Number - Section	Responses	TCE Course Quality Mean	TCE Teaching Quality Mean	Code Term Year
AEC 302 - 001	7	4.43	4.86	30 Spring 2018-2019
AEC 302 - 001	10	4.50	4.80	30 Spring 2017-2018
AEC 302 - 001	8	4.50	4.75	30 Spring 2016-2017
AEC 302 - 001	14	3.93	4.00	30 Spring 2015-2016
AEC 302 - 002	8	4.38	4.63	30 Spring 2019-2020
AEC 302 - 002	6	4.67	4.67	30 Spring 2018-2019
AEC 302 - 002	10	4.50	4.70	30 Spring 2017-2018
AEC 302 - 002	11	4.55	4.82	30 Spring 2016-2017

AEC 302 - 003	7	4.29	4.71	30 Spring
				2020-2021
AEC 302 - 003	11	4.55	4.73	30 Spring
				2019-2020
AEC 302 - 003	5	4.80	5.00	30 Spring
				2018-2019
AEC 302 - 003	5	4.40	4.60	30 Spring
				2017-2018
AEC 302 - 003	11	4.64	4.73	30 Spring
				2016-2017
AEC 302 - 003	14	3.71	3.86	30 Spring
				2015-2016
AEC 340 - 001	12	3.92	4.42	30 Spring
				2020-2021
AEC 340 - 001	18	4.44	4.67	30 Spring
				2019-2020
AEC 340 - 001	13	4.58	4.69	30 Spring
				2018-2019
AEC 340 - 001	15	4.87	4.93	30 Spring
				2017-2018
AEC 340 - 001	18	4.89	4.89	30 Spring
				2016-2017
AEC 340 - 001	15	3.80	3.93	30 Spring
				2015-2016

Note: With regards to 2020 TCEs please consider the following from page 121 of the UK Playbook for Fall 2020, "It is essential that performance evaluation take into account the extenuating circumstances brought about by the disruption for faculty in all title series and the extraordinary work accomplished by faculty in response to the disruption. Academic leaders shall reiterate that TCEs should be but one indicator of effective teaching in both periodic merit reviews and tenure/promotion decisions. Evaluation of teaching must go beyond student evaluations alone."

### **Academic Advising**

50 Summer 2021-2022, 5 undergraduate students advised.

10 Fall 2021-2022, 5 undergraduate students advised.

30 Spring 2020-2021, 6 undergraduate students advised.

## **Other Credit and Non-Credit Instructional Activities**

#### **Guest Lecture**

Beef Management, Participants: Undergraduate Students, 25, (October 16, 2020) Description: Brief overview of farm financial statements and their importance Participants: Undergraduate Students, 100, (October 13, 2020) Description: Recorded a three part series on immigration and agriculture looking at the ethnic composition and legal, social, and political issues around immigration
 ASC Capstone, Participants: Undergraduate Students, 30, (October 19, 2018)
 Description: Overview of farm financial statements
 Intro to Ag Econ, Participants: Undergraduate Students, 40, (October 31, 2017)
 Description: General overview of a range of management topics
 Agribusiness Management, Participants: Undergraduate Students, 25, (October 24, 2017)
 Description: Lecture on some general farm management principles

# Service

#### **Department Service**

#### **Committee Chair**

Extension Committee, (July 1, 2013 - June 5, 2019). State Director

UK Income Tax Seminar Program, (January 1, 2012 - Present).

#### **College Service**

**Co-Director with Will Snell** 

Kentucky Agricultural Leadership Program, (September 1, 2006 - Present).

### **University Service**

#### **Committee Member**

senate advisory committee on privilege and tenure, (2016 - Present).

### **Professional Service**

#### **Committee Member**

Woodford County Conservation District Board, Development and monitoring of soil and water conservation efforts at county level, (January 1, 2019 - December 31, 2020).

# **Professional Development**

#### **Development Activities Attended**

#### **Conference Attendance**

International Association of Programs for Agricultural Leadership. (October 21, 2020 - October 23, 2020). International. Virtual IAPAL conference. Originally scheduled for Indianapolis, IN Altech Virtual Conference. (May 19, 2020 - May 21, 2020). Altech. International. Virtual delivery of Altech's annual conference. Attended multiple sessions featuring national and international speakers

International Association of Programs for Agricultural Leadership. (October 7, 2019 - October 10, 2019). International. San Antonio, TX, United States.
 Annual meeting of ag leadership program directors and staff from U.S, Canada, Scotland, Australia. Dr. Snell and I received Outstanding Director Award.

International Association of Programs for Agricultural Leadership. (October 9, 2018 - October 12, 2018). IAPAL. International. Manhattan, KS, United States.
 Annual meeting of the most supportive and helpful professional group of my career, program leaders and staff of ag leadership development programs

#### Workshop

Kirton Adaptation-Innovation Advanced Workshop. (December 11, 2020 - December 12, 2020).
 KAI Distribution Center and Center for Cooperative Problem Solving. International.
 Two-day webinar to maintain certification as a KAI Practitioner.

#### **Monthly Webinars**

International Association of Programs for Agriculture "Coffee Shop". (October 1, 2019 - December 31, 2020). IAPAL. International.

Webinars for directors of ag leadership development programs featuring topical discussion and interchange of ideas, techniques, and tools to make all our programs better.

Ag Human Resource Study Group. (January 1, 2018 - December 31, 2020). International. Topical webinars on useful readings in the Ag HR world. Discussion leadership rotates. I've led several discussions and participated in all quarterly meetings

#### **Awards and Honors**

- 2019 Outstanding Director Award (shared with KALP Co-Director, Will Snell), International Association of Programs for Agricultural Leadership. Leadership, Recognition Award, International. (October 9, 2019).
- A Teacher Who Made a Difference, University of Kentucky, College of Education. Teaching, Teaching, State. (April 29, 2017).

# **Danielle L. Jostes**

407 Merrywood Drive, Midway, KY danielle.jostes@uky.edu (502) 641-6906

## **EDUCATION:**

**University of Louisville, Louisville, KY** MA Higher Education, 2018

**Murray State University, Murray, KY** College of Business and Public Affairs, 2010 Major: Organizational Communications Minor: Agriculture

# **PROFESSIONAL EXPERIENCE:**

# University of Kentucky, Lexington, KY Director of Equine Philanthropy, College of Agriculture, Food and Environment

- Manage all equine philanthropy activities for College
- Oversee two high level Board of Directors
- Raise \$2-\$5 million per year in philanthropic revenue
- Manage administrative support for Gluck Foundation
- Provide input for marketing and communications strategy
- Work directly with Dean and leadership to plan, execute, and manage strategic philanthropic plans for multiple departments in college

# University of Louisville, Louisville, KY

# Assistant Director of Development, School of Medicine

- Served as Development Officer for the School of Medicine with primary responsibility for the Department of Ophthalmology and the Cardiovascular Innovation Institute
- Managed a portfolio of 150 + prospects throughout the United States
- Raised over \$2,000,000 for prospective departments per year
- Increased philanthropic giving for Ophthalmology & Cardio by 50% in my first year
- Served as interim manager of two Development Associates
- Planned and executed annual and long-term strategic operational goals by implementing a comprehensive philanthropic program for each department
- Cultivated, recruited, and trained fundraising volunteers and committees

# **Clark Memorial Hospital Foundation, Jeffersonville, IN Operations Manager**

- Worked with hospital executive team, physicians, directors, and board of directors to identify philanthropic needs
- Fundraised over \$500,000 per calendar year through major gift asks, payroll deduction campaign, annual appeal, grant writing, and other fundraising vehicles

April 2015 - April 2017

August 2013 - April 2015

April 2017-Present

- Led Clark Memorial's collaboration with Norton Healthcare in a \$1.4 million campaign for new Cancer Resource Center
- Promoted outreach initiatives and foundation accomplishments to the community, current and potential donors
- Maintained donor database, tax records, and prepared organizations 990
- Handled all day to day operations of office

## American Cancer Society, Louisville, KY Making Strides Against Breast Cancer Manager

December 2011 - August 2013

- Managed largest fundraising campaign in Mid-South Division
- Led 20 person team to raise over \$700,000 per calendar year
- Established and maintained relationships with corporate sponsors, businesses, volunteers, and vendors
- Effectively promoted American Cancer Society programs and service lines
- Worked with radio, TV, and other media outlets to promote events
- Handled all day to day operations

# **PROFESSIONAL EDUCATION**

 IUPUI School of Philanthropy – Competed Professional Courses in: Principles and Techniques of Fundraising Developing Major Gifts

# Dr. Laurie M. Lawrence

College of Agriculture, Food and Environment Department of Animal and Food Science

#### Education

- PHD, Colorado State University, 1982. Major: Animal Sciences, General
- MS, Colorado State University, 1978. Major: Animal Sciences, General
- BS, Cornell University, 1975. Major: Animal Sciences, General
- AAS, State University Of New York, 1973. Major: Animal Sciences, General

# **Research and Scholarship**

#### **Intellectual Contributions**

\* = Senior Author ~ = Corresponding Author + = Grad/Prof Student # = Post Doc ^ = Undergraduate WOS = Web of Science JIF = Journal Impact Factor TC = Journal Total Cites SNIP = Source Normalize Impact per Paper SJR = Scimago Journal Rank

#### Published

#### Book, Chapter in Scholarly Book-New

 \* Henning, J. C., Lawrence, L. M. (2019). Hay Production and Management for Horses (34 pages) In, HORSE PASTURE MANAGEMENT, P. Sharpe, ed. *Horse Pasture Management, Elsevier*, 34. doi: 10.1016/B978-0-12-812919-7.00011-1

#### **Extension Publication- Numbered, Original Content**

- Olson, G. I., Smith, S. R., Teutsch, C. D., Phillips, T. D., Lawrence, L. M. (2017). 2017 Cool-season grass horse grazing tolerance report (PR-736). University of Kentucky, College of Agriculture, Food and Environment, Kentucky Agricultural Experiment Station.
- Olson, G. I., Smith, S. R., Phillips, T. D., Lawrence, L. M. (2016). 2016 Cool-season grass horse grazing tolerance report (PR-718). University of Kentucky, College of Agriculture, Food and Environment, Kentucky Agricultural Experiment Station.

#### **Journal Article**

\* Kagan, I. A., Lawrence, L. M., Seman, D. H., Prince, K. J., Fowler, A. L., Smith, S. R. (2018). Effects of sampling time, cultivar and methodology on water- and ethanol-soluble Carbohydrate profiles of three cool season grasses in central Kentucky, *JOURNAL OF EQUINE VETERINARY SCIENCE*, 61, 99-107. doi: http://doi.org/10.1016/j.jevs.201711.011

- + Hansen, T. L., \* Lawrence, L. M. (2017). Composition Factors Predicting Forage Digestibility by Horses, *JOURNAL OF EQUINE VETERINARY SCIENCE*, 58, 97-102. doi: 10.1016/j.jevs.2017.08.015
   | JIF: 0.882
- + Harlow, B. E., Kagan, I. A., Lawrence, L. M., Flythe, M. D. (2017). Effects of Inulin Chain Length on Fermentation by Equine Fecal Bacteria and Streptococcus bovis, *JOURNAL OF EQUINE VETERINARY SCIENCE*, 48, 113-120. doi: 10.1016/j.jevs.2015.11.010
   | JIF: 0.882
- + Harlow, B. E., Lawrence, L. M., Harris, P. A., Aiken, G. E., Flythe, M. D. (2017). Exogenous lactobacilli mitigate microbial changes associated with grain fermentation (corn, oats, and wheat) by equine fecal microflora ex vivo, *PLOS ONE*, 12(3). doi: 10.1371/journal.pone.01745059
  | JIF: 2.806
- Wood, P., Scoggin, K., Ball, B., Lawrence, L. M., Troedsson, M., Brennan, K., + Goedde, L., Squires, E. (2017). Lipidomics evaluation of the effects of feeding a yeast-based supplement containing DHA on DHA-containing glycerophospholipids in stallion spermatozoa., JOURNAL OF VETERINARY MEDICAL RESEARCH, 4, 1072-1076.
- + Harlow, B. E., \* Lawrence, L. M., Hayes, S. H., Crum, A., Flythe, M. D. (2016). Effect of Dietary Starch Source and Concentration on Equine Fecal Microbiota, *PLOS ONE*, 11(4). doi: 10.1371/journal.pone.0154037
- + Hansen, T. L., Fowler, A. L., Strasinger, L. A., Harlow, B. E., Hayes, S. H., \* Lawrence, L. M. (2016). Effect of Soaking on Nitrate Concentrations in Teff Hay, JOURNAL OF EQUINE VETERINARY SCIENCE, 45, 53-57. doi: 10.1016/j.jevs.2016.06.071

#### Journal Article, Academic Journal

- Boakari, Y. L., Ali, H. E.-S., Dini, P., Loux, S. C., Fernandes, C. B., Scoggin, K., Esteller-Vico, A., Lawrence, L. M., Ball, B. A. (2020). Elevated blood urea nitrogen alters the transcriptome of equine embryos, *Reproduction, Fertility and Development*, 32(16), 1239-1249.
- + Fowler, A., + Pyles, M., + Bill, V., Hayes, S., Harris, P., \* Lawrence, L. M. (2020). Relationships between measurements of body fat in thoroughbred horses, *Journal of Equine Veterinary Science*, 85, UNSP 102873. doi: 10.1016/j.jevs.2019.102873
- Kramer, K. J., Kagan, I. A., Lawrence, L. M., Goff, B. M., Smith, S. R. (2020). Water-Soluble Carbohydrates of Cool-Season Grasses: Prediction of Concentrations by Near-Infrared Reflectance Spectroscopy and Evaluation of Effects of Genetics, Management, and Environment, *Journal of Equine Veterinary Science*, 90. doi: 10.1016/j.jevs.2020.103014
- Linhares Boakari, Y., El-Sheikh Ali, H., Dini, P., Loux, S. C., Barbosa Fernandes, C., Esteller-Vico, A., Scoggin, K., Lawrence, L. M., \* Ball, B. A. (2020). Effect of oral urea supplementation on the endometrial transcriptome of mares, *Animal Reproduction Science*, 216.

- Kagan, I. A., Anderson, M. L., Kramer, K. J., Seman, D. H., Lawrence, L. M., Smith, S. R. (2020).
   Seasonal and Diurnal Variation in Water-Soluble Carbohydrate Concentrations of Repeatedly Defoliated Red and White Clovers in Central Kentucky, *Journal of Equine Veterinary Science*, 84. doi: 10.1016/j.jevs.2019.102858
- + Fowler, A., + Pyles, M., Hayes, S., + Crum, A., \* Lawrence, L. M. (2019). Phosphorus excretion by mares post-lactation, *Journal of Animal Physiology and Animal Nutrition*, 00, 1-7. doi: https://doi.org/10.1111/jpn.13251
- Boakari, Y. L., Ali, H. E., Dini, P., Loux, S. C., Fernandes, C. B., Scoggin, K., Esteller-Vico, A., Lawrence, L. M., \* Ball, B. A. (2019). A high protein model alters the endometrial transcriptome of mares, *Genes*, 10(8). doi: 10.3390/genes10080576
- Kagan, I. A., Goodman, J. P., Seman, D. H., Lawrence, L. M., Smith, S. R. (2019). Effects of Harvest Date, Sampling Time, and Cultivar on Total Phenolic Concentrations, Water-Soluble Carbohydrate Concentrations, and Phenolic Profiles of Selected Cool-Season Grasses in Central Kentucky, *Journal of Equine Veterinary Science*, 79, 86-93. doi: 10.1016/j.jevs.2019.05.005
- + Pyles, M., + Fowler, A., + Bill, V., # Harlow, B., Crum, A., Hayes`, S., Flythe, M., \* Lawrence, L.
   M. (2019). Effect of maternal diet on select fecal bacteria of foals, *Translational Animal Science*, 3, 204-211. doi: DOI: 10.1093/tas/txy141
- + Pyles, M. B., + Fowler, A. L., + Bill, V. `. T., Crum, A. D., Hayes`, S. H., # Harlow, B. E., Flythe, M. D., \* Lawrence, L. M. (2019). Effect of starch source in pelleted concentrates on fecal bacteria in pre- and postpartum mares, *JOURNAL OF EQUINE VETERINARY SCIENCE*, 72, 31-36. doi: DOI: 10.1016/j.jevs.2018.10.014
- Kagan, I. A., \* Lawrence, L. M., Seman, D. H., Prince, K. J., Fowler, A. L., Smith, S. R. (2018).
   Effects of sampling time, cultivar, and methodology on water- and ethanol-soluble carbohydrate profiles of three cool-season grasses in central Kentucky, *Equine Veterinary Science*, 61, 99-107. doi: doi.org/10.1016/j.jevs.2017.11.011

#### **Biographical-Item**

- Lawrence, L. M. (2017). In Memory: Harold F. Hintz, Ph.D. (1937-2016), *JOURNAL OF EQUINE VETERINARY SCIENCE*, 52, 127-128. doi: 10.1016/j.jevs.2017.03.008 | JIF: 0.882
- \* Lawrence, L. M., Pagan, J. D., Llewellyn, M. D. (2016). Curriculum Vitae Paper Harold F. Hintz (1937-2016), *COMPARATIVE EXERCISE PHYSIOLOGY*, 12, 209-213. doi: 10.3920/CEP165000

#### **Report, Technical**

\* Lawrence, L. M., Shewmaker, G., Lacefield, G., Undersander, D. (2019). Alfalfa - High Quality Hay for Horses, *National Alfalfa and Forage Alliance*(Second edition).

#### Software, Instructional

Lawrence, L. M. (2020). Instructional materials for online delivery of ASC 410G, ASC 389 and ASC 311 during 2020. Approximately 60 recorded lectures or videos with supplemental handouts

#### Accepted

#### Journal Article

+ Boakari, Y., El Sheikh Ali, H., Schnobrich, M., Scoggin, C., Lofrumento, K., Bradekamp, E., Scoggin, K. E., Esteller-Vico, A., Claes, A., Lawrence, L. M., \* Ball, B. A. Date Accepted: (October, 2020). Relationship between blood and follicular fluid urea nitrogen concentrations and between blood urea nitrogen and embryo survival in mares. Theriogenology.

#### **Sponsored Projects**

#### Closed

Lawrence L., M., Effect of Prebiotics on Dry Matter, NDF and ADF Digestibility of Common Equine Feeds Using an in Vitro Model, Sponsored by Cooperative Research Farms Submitted: October 4, 2018. Funding Dates: December 1, 2018 - October 1, 2019. | Awarded: \$12,739.00

OSPA ID: 201810042222

 Lawrence L., M., Factors influencing phosphorus excretion, Sponsored by Waltham Centre for Pet Nutrition Submitted: August 19, 2015. Funding Dates: October 1, 2015 - March 31, 2017.
 Awarded: \$19,800.00

OSPA ID: 201508190936

- Lawrence L., M., Analysis of insulin concentrations, Sponsored by Alltech Incorporated Submitted: September 16, 2014. Funding Dates: April 15, 2015 - December 31, 2016. | Awarded: \$5,204.00 OSPA ID: 201409162211
- Lawrence L., M., In vitro evaluation of an equine feed additive, Sponsored by Probiotech International Incorporated Submitted: September 18, 2015. Funding Dates: September 30, 2015 - August 15, 2016. | Awarded: \$9,591.00
   OSPA ID: 201509181317

#### Not Funded

- Holder M., Lawrence L., M., Growth Characteristics and the Associated Environmental Impact Consequences of Supplementing Growing Horses at or Above Recommended Dietary Mineral Levels, Sponsored by Iowa Department of Agriculture and Land Stewardship Submitted: May 14, 2019. | Awarded: \$0.00
  OSPA ID: 201905141316
- Lawrence L., M., Mare milk Composition And Foal Fecal Bacteria, Sponsored by Grayson Jockey Club Research Foundation Inc Submitted: September 27, 2017. | Awarded: \$0.00 OSPA ID: 201709271304

#### Scope Grants

#### Closed

ARS/SCA: The Role of Forage Carbohydrate and Secondary Metabolite Concentrations in Equine Hindgut Fermentation, Amine Production, and Pasture-Associated Laminitis, Sponsored by Agricultural Research Service Submitted: October 19, 2016. Funding Dates: July 1, 2016 -April 30, 2018. | Current Budget Amount: \$26,013.00

Prime Grant OSPA ID: 201602041500

 Ball B., A., Lawrence L., M., ARS/SCA: Effects of dietary crude protein on fertility in mares, Sponsored by Agricultural Research Service Submitted: August 21, 2015. Funding Dates: August 1, 2015 - April 30, 2018. | Current Budget Amount: \$41,040.00

Prime Grant OSPA ID: 201305081534

Lawrence L., M., ARS/SCA: Effect of maternal diet on the neonatal equine gastrointestinal tract microbiome, Sponsored by Agricultural Research Service Submitted: February 5, 2016. Funding Dates: August 1, 2014 - April 30, 2018. | Current Budget Amount: \$44,694.00

Prime Grant OSPA ID: 201602041500

Lawrence L., M., ARS/SCA: Factors affecting carbohydrate and secondary metabolites in pasture, Sponsored by Agricultural Research Service Submitted: February 5, 2016. Funding Dates: August 1, 2014 - April 30, 2018. | Current Budget Amount: \$32,132.00

Prime Grant OSPA ID: 201602041500

ARS/SCA: Effect of maternal diet on the neonatal equine gastrointestinal tract microbiome, Sponsored by Agricultural Research Service Submitted: July 18, 2013. Funding Dates: July 1, 2013 - April 30, 2018. | Current Budget Amount: \$64,400.00

Prime Grant OSPA ID: 201305081534

ARS/SCA: Factors affecting carbohydrate and secondary metabolites in pasture, Sponsored by Agricultural Research Service Submitted: July 18, 2013. Funding Dates: July 1, 2013 - April 30, 2018. | Current Budget Amount: \$59,776.00

Prime Grant OSPA ID: 201305081534

 Ball B., A., Lawrence L., M., ARS/SCA: Effects of dietary crude protein on fertility in mares, Sponsored by Agricultural Research Service Submitted: February 4, 2016. Funding Dates: May 1, 2013 - April 30, 2018. | Current Budget Amount: \$117,719.00

Prime Grant OSPA ID: 201602041500

#### **Non-Sponsored Projects**

Federal

# Hatch

### Closed

Lawrence, L. M., Factors affecting phosphorus concentrations and phosphorus digestibility in pasture herbage consumed by grazing animals, National Institute of Food and Agriculture, (October 1, 2013 - September 30, 2018).

#### On-going

- Lawrence, L. M., Factors affecting mineral concentrations in pasture herbage consumed by grazing animals, (November 27, 2018 September 30, 2023).
- Lawrence, L. M., Factors affecting mineral concentrations in pasture herbage consumed by grazing animals, National Institute of Food and Agriculture, (November 27, 2018 September 30, 2023).

#### Industrial/Trade

#### **On-going**

Lawrence, L. M. (Principal), Gift in support of equine nutrition research, Cooperative Research
 Farms, (2018 - 2019). Awarded: \$10000.
 Description: Gift in support of equine nutrition research

#### University

#### On-going

Holder, M. (Co-Investigator), Coleman, R. J. (Co-Investigator), Lawrence, L. M. (Collaborator), Hayes, M. D. (Collaborator), Fowler, A. L. (PostDoct Student), Dockery, J. (Collaborator), Aerated manure compost facility for the smaller horse-farm operation, Sustainability Challenge Grant, (July 2020 - October 2021). Awarded: \$24461.1.

#### **Presentations Given**

Lawrence L. M., (December 2020). Thehorse.com podcast.

Lawrence L. M., (2020). New perspectives on foal nutrition UK Equine Programs Showcase.

- Hansen T., Lawrence L. M., (2019). Use of models in equine science Equine Science Society Symposium. Invited, International.
- Fowler A. L., Teutsch C., Smith S. R., Goff B., Prince K., Lawrence L. M., (2018). Assessing mineral concentrations of cool season grass across seasons American Forage and Grasslands Council.
- Bill V. T., Lawrence L. M., (2018). Effects of forage chemical composition on dry matter digestibility in the horse determines using Daisy II American Forage and Grasslands Council.

- Pyles M. B., Hayes S. H., Fowler A. L., Bill V. T., Crum A. D., Lawrence L. M., (2018). Time budgets of mares and foals grazing cool season grass pastures (Awarded 2nd place in emerging scientist completion) American Forage and Grasslands Council.
- Pyles M. D., Fowler A., Crum A., Hayes S., Gellin G., Flythe M., Lawrence L. M., (2018). Carbohydrate utilizing bacteria in foal feces (Received the Coverdale Graduate Student Award) American Society of Animal Science.
- Fowler A., Pyles M., Hayes S., Crum A., Bill V., Krotky A., Harris P., Lawrence L. M., (2018). Weight change affects mineral excretion and markers of bone turnover in horses American Society of Animal Science.
- Lawrence L. M., (2018). Feeding the broodmare University of Kentucky Equine Short Course Breeders' Short Course, UK.
- Pyles M. B., Fowler A. L., Bill V. T., Crum A. D., Hayes S. H., Flythe M. D., Lawrence L. M., (2017). Changes in milk insulin concentration of thoroughbred mares in early lactation (with published abstract in Journal of Equine Veterinary Science 52:113) Equine Science Symposium, Equine Science Society.
- Pyles M. B., Fowler A. L., Bill V. T., Crum A. D., Hayes S. H., Flythe M. D., Lawrence L. M., (2017). Effect of probiotics on antibiotic-induced changes in fecal bacteria of horses (with published abstract in Journal of Equine Veterinary Science 52:82) Equine Science Symposium, Equine Science Society.
- Fowler A. L., Parsons J., Walling L., Lawrence L. M., (2017). Muzzling affects horse behavior (with published abstract in Journal of Equine Veterinary Science 52:101. NOTE: This presentation was selected by "THE HORSE" magazine for a follow up article) Equine Science Symposium, Equine Science Society.
- Fowler A., Pyles M., Bill V., Parsons J., Walling L., Lawrence L. M., (2017). Relationships between total body water, ultrasonic measures of fat depots and morphometric measurements in horses (with published abstract in Journal of Equine Veterinary Science 52:50) Equine Science Symposium, Equine Science Symposium.
- Lawrence L. M., (2017). New perspectives on foal nutrition from nursing to grazing University of Kentucky Equine Showcase, UK.
- Lawrence L. M., (2017). Feeding management of horses on pasture University of Kentucky Farm and Facilities Field Day, UK.
- Lawrence L. M., (November 2017). Understanding Carbohydrates in Your Horse's Diet Northern Kentucky Horse Network, Northern Kentucky Horse Network.
- Lawrence L. M., (March 2017). Nutrition and Equine Digestive Health National Meeting of the Horseman's Benevolent and Protective Association (National HBPA), Horsemen's Benevolent and Protective Assoc.

#### **Invited Speaker**

Lawrence L. M., (2019). Supplements for Horses Alltech One.

- Lawrence L. M., (2019). Lessons learned from past NRC publications Equine Science Society Symposium. Invited, International.
- Lawrence L. M., (2019). Current concepts in Equine Nutrition Thoroughbred Owners' and Breeders' Association.

#### **Podium Session**

- Fowler A., Lawrence L. M., (2019). Reducing phosphorus excretion by horses Mid-West ASAS DSM Young Scientist Competition Finalist (Ashley Fowler).
- Fowler A., Lawrence L. M., (2019). Impact of phosphorus recycling on the equine phosphorus requirement Southern Section ASAS Emerging Young Scientist Recipient (Ashley Fowler).
- Pyles M., Ashley F., Andrea C., Susan H., Schendel R. R., Flythe M., Lawrence L. M., (June 6, 2019). Influence of milk composition and foal microbiota on diarrhea incidence Equine Science Society Symposium, Equine Science Society, Asheville, NC, United States. Accepted, State.
- Pyles M., Ashley F., Andrea C., Susan H., Schendel R. R., Lawrence L. M., (June 4, 2019). Dietary nonstructural carbohydrate affects mare milk production and composition Equine Science Society Symposium, Equine Science Society, Asheville, NC, United States. Accepted, State.

#### **Round Table participant**

Lawrence L. M., (2020). Ask the expert Thehorse.com Webinar.

Lawrence L. M., (2019). Feeding the off the track thoroughbred (panel) Retired Racehorse Project.

# Extension

#### **Extension Publications & Media**

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* = Senior Author ~ = Corresponding Author + = Grad/Prof Student # = Post Doc ^ = Undergraduate
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#### Published

#### Non Peer-Reviewed

#### **Extension Publication- Numbered, Original Content**

Olson, G. L., Smith, S. R., Teutsch, C., Henning, J. C., Phillips, T. D., Lawrence, L. M. (2020). PR-790 2020 Cool-Season Grass Horse Grazing Tolerance Report Lexington, KY, *University of Kentucky Agricultural Experiment Station*(PR-790).

- Teutsch, C., Henning, J. C., Lawrence, L. M., Smith, S. R., Phillips, T. D. (2019). PR-772- 2019 Cool-Season Grass Horse Grazing Tolerance Report, *University of Kentucky Agricultural Communications Service*.
- Olson, G. L., Smith, S. R., Teutsch, C. D., Phillips, T. D., Lawrence, L. M. (2017). 2017 Cool-Season Grass Horse Grazing Tolerance Report, *Univ. of KY PR Report*.

#### Magazine/Trade Publication

- Camargo, F. C., Lawrence, L. M., Coleman, R. J. (2019). Body Condition Scoring Horses: Step by Step, *The Horse Magazine*.
- Camargo, F. C., Lawrence, L. M., Coleman, R. J. (2019). My Horse is Skinny. What Should I do?, *The Horse Magazine*.
- Camargo, F. C., Lawrence, L. M., Coleman, R. J. (2019). My Horse is too Fat. What should I do?, *The Horse Magazine*.

# Teaching

#### Teaching

<b>Prefix Number - Section</b>	Credit Hours	# Enrolled	Code Term Year
ASC 311 - 001	1.00000 - 1.00000	8	10 Fall 2020-2021
ASC 311 - 251	1.00000 - 1.00000	10	10 Fall 2020-2021
ASC 767 - 009	2.00000 - 2.00000	1	10 Fall 2020-2021
ASC 389 - 010	2.00000 - 2.00000	6	50 Summer 2019-2020
ASC 389 - 001	2.00000 - 2.00000	28	30 Spring 2019-2020
ASC 395 - 010	1.00000 - 4.00000	1	30 Spring 2019-2020
ASC 410G - 001	3.00000 - 3.00000	28	30 Spring 2019-2020
ASC 767 - 004	2.00000 - 2.00000	1	30 Spring 2019-2020
ASC 311 - 001	1.00000 - 1.00000	13	10 Fall 2019-2020
ASC 767 - 009	2.00000 - 2.00000	1	10 Fall 2019-2020
ASC 389 - 001	2.00000 - 2.00000	18	30 Spring 2018-2019
ASC 395 - 010	1.00000 - 4.00000	1	30 Spring 2018-2019
ASC 410G - 001	3.00000 - 3.00000	28	30 Spring 2018-2019
ASC 767 - 004	2.00000 - 2.00000	1	30 Spring 2018-2019
ASC 311 - 001	1.00000 - 1.00000	17	10 Fall 2018-2019
ASC 767 - 009	2.00000 - 2.00000	1	10 Fall 2018-2019
ASC 389 - 001	2.00000 - 2.00000	29	30 Spring 2017-2018
ASC 410G - 001	3.00000 - 3.00000	28	30 Spring 2017-2018
ASC 767 - 004	2.00000 - 2.00000	1	30 Spring 2017-2018
ASC 311 - 001	1.00000 - 1.00000	14	10 Fall 2017-2018

		-	
ASC 767 - 009	2.00000 - 2.00000	1	10 Fall 2017-2018
ASC 389 - 001	2.00000 - 2.00000	26	30 Spring 2016-2017
ASC 399 - 003	1.00000 - 6.00000	1	30 Spring 2016-2017
ASC 410G - 001	3.00000 - 3.00000	25	30 Spring 2016-2017
ASC 767 - 004	2.00000 - 2.00000	1	30 Spring 2016-2017
ASC 311 - 001	1.00000 - 1.00000	13	10 Fall 2016-2017
ASC 782 - 004	1.00000 - 4.00000	1	10 Fall 2016-2017
ASC 792 - 001	1.00000 - 6.00000	1	10 Fall 2016-2017
ASC 389 - 001	2.00000 - 2.00000	30	30 Spring 2015-2016
ASC 410G - 001	3.00000 - 3.00000	25	30 Spring 2015-2016
ASC 410G - 002	3.00000 - 3.00000	23	30 Spring 2015-2016

#### **Teacher Course Evaluations**

Prefix Number - Section	Responses	TCE Course	TCE Teaching	Code Term Year
		Quality Mean	Quality Mean	
ASC 311 - 001	5	4.60	4.80	10 Fall 2019-2020
ASC 311 - 001	6	3.83	3.83	10 Fall 2018-2019
ASC 311 - 001	9	3.44	3.78	10 Fall 2017-2018
ASC 311 - 001	10	4.70	4.80	10 Fall 2016-2017
ASC 389 - 001	5	4.40	4.60	30 Spring
				2019-2020
ASC 389 - 001	10	3.40	3.50	30 Spring
				2015-2016
ASC 410G - 001	13	4.46	4.62	30 Spring
				2019-2020
ASC 410G - 001	8	4.00	4.50	30 Spring
				2018-2019
ASC 410G - 001	13	4.38	4.46	30 Spring
				2017-2018
ASC 410G - 001	7	4.86	5.00	30 Spring
				2016-2017
ASC 410G - 001	11	3.27	3.18	30 Spring
				2015-2016
ASC 410G - 002	9	3.00	3.11	30 Spring
				2015-2016

Note: With regards to Spring 2020 TCEs please consider the following from page 121 of the UK Playbook for Fall 2020, "It is essential that performance evaluation take into account the extenuating circumstances brought about by the disruption for faculty in all title series and the extraordinary work accomplished by faculty in response to the disruption. Academic leaders shall reiterate that TCEs should be but one indicator of effective teaching in both periodic merit reviews and tenure/promotion decisions. Evaluation of teaching must go beyond student evaluations alone."

### **Theses and Dissertations**

#### **Dissertation Committee Chair**

- Morgan Pyles, Animal Science/Equine nutrition, "Effect of diet on mare milk composition," Status: In-Process. (January 17, 2017 - Present).
- Ashley Fowler, Animal Science/Equine nutrition, "Factors influencing phosphorus excretion by horses," Status: Degree Awarded. (July 24, 2018).

#### **Dissertation Committee Member**

Masa Williams, Animal Science The Ohio State Unversity. (March 2016 - 2020).

Yatta Linhares Boakari, Veterinary Science, Status: Degree Awarded. (2016 - July 2019).

Karmella Dolecheck, Animal Science, Status: Degree Awarded. (March 16, 2018).

Navid Mashouf, Veterinary Science, Status: In-Process. (August 15, 2017 - January 2018).

Barbara Jones, Animal Science, Status: Degree Awarded. (July 18, 2017).

#### **Master's Thesis Committee Chair**

Veronica Bill, Animal Science/Equine Nutrition, "Applications in utilization of forage chemical composition and predicting equine digestibility," Status: Completed. (September 5, 2018).

Morgan Pyles, Animal Science/Equine nutrition, "Effect of maternal diet on select fecal bacteria in mares and their foals," Status: Degree Awarded. (December 12, 2016).

#### **Master's Thesis Committee Member**

AnnMarie Riley, Plant Science, Status: Degree Awarded. (August 15, 2016 - May 2019). Academic Advising

Academic year 2018-2019, 19 undergraduate students advised, 1 graduate student advised.

Academic year 2017-2018, 12 undergraduate students advised, 3 graduate student advised.

Academic year 2016-2017, 12 undergraduate students advised, 3 graduate student advised.

Academic year 2015-2016, 12 undergraduate students advised, 3 graduate student advised.

#### **Other Credit and Non-Credit Instructional Activities**

#### **Club Advising**

UK Horse Racing Club, (2017-2020) Description: Help students arrange speakers for monthly meetings and field trips

#### **Guest Lecture**

ASC 320. Equine Management, (2020) Description: Horse Feeding Practices

Godolphin Flying Start, (2020) Description: The equine hoof and lower limb

Godolphin Flying Start, (2020) Description: Mechanics of horse limbs

ASC 101, Domestic Animal Biology, (2019) Description: 6 lab sections spring and fall

ASC 320. Equine Management, (2019) Description: Horse feeding practices

ASC 382. Livestock Management, (2019) Description: Equine farm management

EQM 101. Introduction to Horses and the Horse Industry, (2019) Description: lecture on equine digestion

Kentucky Equine Management Internship, (2019) Description: Equine Growth and Development

Kentucky Equine Management Internshop, (2019) Description: Equine Growth and Development

Domestic Animal Biology, (2018) Description: Organize and deliver the horse management lab to 100-150 students per semester

Kentucky Equine Management Internship, (2018) Description: Give two lectures a year to the 40-50 students in the KEMI program

Godolphin Flying Start Program, (2018) Description: Give one guest lecture and take the 12 trainees on a horse feed manufacturing field trip Domestic Animal Biology, (2017)

Description: Organize and deliver the horse management lab to 100 students each semester

Godolphin Flying Start Program, (2017)

Description: Give one guest lecture and take trainees on a horse feed manufacturing field trip

Kentucky Equine Management Internship, (2017) Description: 2 guest lectures per year to the 40-50 students in the KEMI program

#### Management/Executive Development

Mastere of Equine Science and Business (MESB), (2019) Description: Coordinate visit of students from France for a 4-week period in Spring 2019

Mastere of Equine Science and Management (MESB), AgrosupDijon, FR, (2018) Description: Each spring 6-12 students in a Mastere program in France visit Lexington for 1 month to learn about the horse industry. I schedule their visits to farms and businesses and arrange or deliver approximately 60 hours of lecture during their visit

Mastere of Equine Science and Management (MESB), AgrosupDijon, FR, (2017) Description: Each spring 6-12 students in a Mastere program in France visit Lexington for 1 month to learn about the horse industry. I schedule their visits to farms and businesses and arrange or deliver approximately 60 hours of lecture during their visit

# Service

# **Department Service**

AWARDS COMMITTEE: This committee organizes nomination materials for college, university, regional and national awards. I have compiled at least one successful nomination package in 2017 and 2018., (2019 - 2020).

Department Chair's Advisory Committee, (2019 - 2020).

FACULTY SUPERVISOR TO THE HORSE UNIT. Provided general oversight of employees, animals and facility. Completed/updated IACUC facility document. Recruited donations of animals. Requested funds for improvements. Managed scheduling of events, classes, research projects occurring at the unit. Hired and trained new unit manager, (2019 - 2020).

ANIMAL AND FOOD SCIENCES REUNION COMMITTEE: This committee organizes the annual DAFS Alumni Reunion during Roundup. The event is attended by 150 to 200 people each

year. My main contribution is the silent auction that raises funds for undergraduate scholarships., (2019).

## **College Service**

- Outreach to stakeholders (answer approximately 50 phone calls, emails, interviews, farm visits/consults related to equine nutrition and feeding and provide approximately 12 tours of the DAFS Horse Unit per year), (January 2019 2020).
- Equine Experience Days (College recruiting activity for the Equine Science and Management degree program), (2019).
- Equine Experience Day (College recruiting activity for the Equine Science and Management degree program), (2017).
- Outreach to stakeholders (answer approximately 50 phone calls, emails, interviews, farm visits/consults related to equine nutrition and feeding and provide approximately 12 tours of the DAFS Horse Unit per year), (October 20, 2016 December 31, 2017).

Equine Programs Council, (2016 - 2017).

CAFE Advisory Committee on Appointment, Promotion and Tenure, (2016 - January 1, 2017). Committee Chair

North Farm User Group, (2016 - 2020).

CAFE Advisory Committee on Appointment, Promotion and Tenure, (2017).

### **Professional Service**

Translational Animal Science, manuscript review, (2018 - Present).

Journal of Equine Veterinary Science, Manuscript review, (2019 - 2020).

Journal of Animal Science, manuscript review, (2017 - 2020).

Animal Reproduction Science, manuscript review, (2018).

Comparative Exercise Physiology, manuscript review, (2018).

Research in Veterinary Science, manuscript review, (2018).

Natural Sciences and Engineering Research Council of Canada (NSERC), Research proposal review, (2017).

National Association of Equine Affiliated Academics, Board of Directors, (2016 - 2017). Committee Member

Kentucky Equine Management Internship, Education chair/board of directors. Assist with application review, intern placements, intern evaluations, (2001 - 2020).

#### **Reviewer, Journal Article**

Applied Animal Science, (2019 - 2020).

BMC Veterinary Research, (2019 - 2020).

# **Professional Development**

#### **Professional Memberships**

Equine Science Society. International. (May 1, 1983 - October 31, 2018).

American Society of Animal Science. International. (January 1, 1983 - October 31, 2018).

#### **Development Activities Attended**

#### **Conference Attendance**

AAEP Colic Symposium. (2017).

- Equine Science Symposium. (May 31, 2017 June 2, 2017). Equine Science Society. International. Minneapolis, MN, United States. Equine research conference
- National Association of Equine Affiliated Academics Annual Meeting. (May 30, 2017). NAEAA. National. Minneapolis, MN. Workshops for education professionals teaching equine courses

#### **Awards and Honors**

*Don Henneke Education Impact Award*. Service, Professional, Lifetime achievement award. (June 1, 2018).

# Krista La Moen Lea

Maiden name: Krista Cotten Curriculum vitae

N-222C Ag Science Center North University of Kentucky Lexington, KY 40546 (859) 257-0597 Krista.lea1@uky.edu

4665 Troy Pike Versailles, KY 40383 (806) 683-5143

# EDUCATION

- 2015 Graduate Certificate in College Teaching and Learning. University of Kentucky, Lexington, KY.
- 2014 M.S. Integrated Plant and Soil Science. Department of Plant and Soil Sciences, University of Kentucky, Lexington, KY.
- 2009 B.S. Animal Science, Animal Industry Option with Equine Focus. Department of Animal and Food Science, University of Kentucky, Lexington, KY.
- 2007 Spring Breeding and Foaling, Graduate. Kentucky Equine Management Internship. Lexington, KY.

# RESEARCH

# **Book Chapters**

- **2018** Lea, K., S. Ray Smith, T. Keene. University of Kentucky Horse Pasture Evaluation Program (Chapter) in *Horse Pasture Management*, edited by Dr. Paul Sharpe. Elsevier. November.
- **2018** Smith, S.R., and **K. Lea.** Pasture Plant Establishment and Management (Chapter) in *Horse Pasture Management*, edited by Dr. Paul Sharpe. Elsevier. November.

# **Refereed Journal Articles**

- 2021 Lea, K.L.M.; S.R. Smith. Using On-Farm Monitoring of Ergovaline and Tall Fescue Composition for Horse Pasture Management. Toxins, 13, 683. https://doi.org/10.3390/toxins13100683
- 2018 Gott. P., E. Hendel, K. Lea, S. Smith, U. Hofstetter-Schahas, K. Robbins. G. Murugesan. Ergovaline and Additional Mycotoxins in Tall Fescue. Journal of Animal Science, Volume 96, Issue suppl\_3, December 2018, Pages 208–209.
- 2018 McDowell, K., V. Taylor, T. Phillips, **K. Lea**, R. Smith, G. Aiken, and M. Barrett. Pregnant Mares Grazing on Novel Endophyte-Infected Tall Fescue Foal Normally. JEVS. December 2018.

- 2018 Davis, D., G. Aiken, D.A. Llewellyn, **K. Lea** and S.R. Smith. Case Study: Intake and apparent digestibility of Alamo and Cave-in-Rock switchgrass cultivars harvested as hay at 3 different maturities by beef calves. The Professional Animal Scientist. https://doi.org/10.15232/pas.2017-01713. Accepted July 2018.
- 2018 McDowell, K., Taylor, V., Phillips, T., **Lea, K.,** Smith, S.R., Aiken, G. and Barrett, M. Pregnant mares grazing a novel endophyte infected tall fescue foal normally. Journal of Equine Veterinary Science. Accepted Oct. 2018.
- 2014 Lea, K., L. Smith, C. Gaskill, R. Coleman and S.R. Smith. Ergovaline Stability in Tall Fescue Based on Sample Handling and Storage Methods. Frontiers in Chemistry, 2.
- 2014 Lea, K., L. Smith, C. Gaskill, R. Coleman and S.R. Smith. Tall Fescue Ergovaline Concentration Based on Sample Handling and Storage Method. Thesis, University of Kentucky, Lexington, KY. May.
- 2012 Smith, S.R., **K. Cotten**, R. Allman, R. Watson, K. Sena and T. Keene. Grazing and Pasture Management Considerations from Around the World. *Forages and Grazing in Horse Nutrition*. Vol. 132, pp 197-208.

# Papers in Refereed Conference Proceedings

- 2021 Lea, K. and S.R. Smith. Kentucky's Comprehensive Outreach Program for Horse Pasture Management and Education. International Grassland Congress / International Rangeland Congress joint meeting. Nairobi, Kenya and Virtual. October 25-31.
- 2021 Smith, S.R., G. Pighetti, D. Butler, K. Burdine, K. Lea, K. Mercier, K. Payne, J. Allison, G. Bates, N. Colton, A. Rus, P. Krawczel and E. Eckelkamp. Forage Systems to Optimize Agronomic and Economic Performance in Organic Dairy Systems. International Grassland Congress / International Rangeland Congress joint meeting. Nairobi, Kenya and Virtual. October 25-31.
- 2018 Gott. P.N., E.G. Hendel, **K. Lea**, S.R. Smith, U. Hofstetter-Schahs, K.M. Robbins and Raj. Murugesan. Ergovaline and Additional Mycotoxins in Tall Fescue. American Society of Animal Science Annual Meeting. Vancouver, British Columbia, Canada. July 10.
- 2017 Taylor, V. T. Phillips, G. Aiken, M. Barrett, S.R. Smith, **K. Lea**, K. McDowell. A New Novel Endophyte Tall Fescue Has No Adverse Effects on Pregnant Mares or Foals. Equine Science Society Symposium. Minneapolis, MN. May 30 June 2.
- 2016 Smith. S.R., **K. Lea** and R. Watson. High Quality Forages for Horses: Recommendations for Pasture and Hay. The Sixth Korea-China-Japan Grassland Conference. Jeju, Korea. August 17-20.
- 2016 Lea, K., B.M. Goff, J. Morrison, S.R. Smith and J. Tucker. Attendance at National Agronomy Competition Leads to Career Opportunities for Undergraduates. International Rangeland Congress. Saskatoon, Saskatchewan, Canada. July 18-22.
- 2016 Smith, S.R., T. Keene, P. Robuck, K. Prince and **K. Lea**. Switchgrass Quality and Biomass Suitability over Fertilizer Type and Rate and Maturity. International Rangeland Congress. Saskatoon, Saskatchewan, Canada. July 18-22.
- 2016 Lea, K. T. Keene and S.R. Smith. Improving Equine Pastures through Evaluation and Education. International Rangeland Congress. Saskatoon, Saskatchewan, Canada. July 18-22.

- 2015 Smith, S.R., G. Lacefield, G. Roberts and **K. Lea**. Use of Surveys, Field Demonstrations, and Time Lapse Photography for Delivery of Forage Extension Information. The 23<sup>rd</sup> International Grassland Congress. Delhi NCR, India. November 20-24.
- 2013 **Cotten, K.**, L. Smith, C. Gaskill, R. Coleman and S.R. Smith. Effect of Sample Handling and Storage on Ergovaline Concentration in Fresh Tall Fescue Samples. 22<sup>nd</sup> International Grassland Congress, Sydney, Australia. September 15-19.
- 2013 Smith, S.R., T. Keene, L.C. Greenwell and K. Cotten. Novel Approaches to Developing On-Farm Biomass Production Systems. 22<sup>nd</sup> International Grassland Congress, Sydney, Australia. September 15-19.

# Papers at Professional Meetings

- 2021 Sharpe, P.H., R.J. Coleman, **K.L. Lea**, G.W. Webb. Benefits of Equine Pasture Management Training. National Association of Equine Affiliated Academics annual conference "Teaching Through Transition". Virtual. May 25 and 26.
- 2021 Fardy, R. K. Lea and S.R. Smith. Evaluation of Horse Pasture Score Card. American Forage and Grassland Council Annual Conference. Virtual. January 11-12.
- 2020 Smith, S.R., K. Payne, **K. Lea**, D. Butler, G. Bates, and G. Pigetti. 2020. Forage mixture evaluation for organic dairy production. In Proc. of the American Forage and Grassland Council Annual Meeting. Greenville, SC. 5-7 January
- 2020 Lea, K., S. Beidleman, K. Hargadon, and S.R. Smith. Techniques for evaluating health and productivity of cool season perennial pastures. In Proc. of the American Forage and Grassland Council Annual Meeting. Greenville, SC. 5-7 January
- 2020 Colton, N., J. Allison, S.R. Smith, K. Burdine, K. Lea, D. Butler, G. Bates, G. Pigetti,
   A. Rius, and P. Krawczel. AFGC Decision Tool: Estimated Costs of Production for
   Organic Pasture Mixtures. In Proc. of the American Forage and Grassland Council
   Annual Meeting. Greenville, SC. 5-7 January
- 2020 Musen, S.L., **K. Lea**, S.R. Smith, and R.J. Coleman. Effectively reaching the equine community. In Proc. of the American Forage and Grassland Council Annual Meeting. Greenville, SC. 5-7 January
- 2019 Leow, C.J., W. Witt, **K. Lea**, B.R. Baldridge, and S.R. Smith. Weed control on horse pastures with herbicides. In Proceedings of the Kentucky Academy of Science Annual Meeting. Berea, KY. 1-2 Nov.
- 2019 Smith, S.R., **K. Lea**, and S. Beidleman. Monitoring of horse pasture composition and tall fescue toxicity in Kentucky. In Proceedings of the So. Forage Crop Improvement Conference. Roanoke, VA. 21-23 May
- 2019 Henning, J.C., **K. Lea**, S.R. Smith, and C. Teutsch. Diagnosis and response to fescue toxicosis on a central Kentucky horse farm: An Extension case study. In Proc. of the American Forage and Grassland Council Annual Meeting. St. Louis, MO. 6-8 January.
- 2019 Lea, K. and S.R. Smith. Can Targeted Management Reduce Nimblewill in Pastures? American Forage and Grassland Council Annual Conference. St. Louis, MO. January 7-9.
- 2018 Lea, K., T.C. Keene and S.R. Smith. Twelve Years of Horse Pasture Evaluation. American Forage and Grassland Council Annual Conference. Roanoke, VA. January 14-17.
- 2017 Smith, S.R. and **K. Lea**. Using Summer Interns to Advance Forage Research and Extension. ASA, CSSA and SSSA International Annual Meeting. Tampa, FL. Oct. 22-25.

- 2017 Smith, S.R., **K. Lea**, T. Keene, G. Olson, G. Roberts and A. Kadnar. Forage Quality on the Move: Long-term Storage of Switchgrass and Forage Quality. American Forage and Grassland Council Annual Conference. Roanoke, VA. January 22-24.
- 2017 Smith, S.R., S. Taylor, **K. Lea**, G. Bates, D. Butler and G. Roberts. Forage Mixtures Ideal for Organic Dairy Production in Kentucky and Tennessee. American Forage and Grassland Council Annual Conference. Roanoke, VA. January 22-24.
- 2017 Smith, S.R., S. Taylor, **K. Lea**, G. Bates, D. Butler and G. Roberts. Forage Mixtures Ideal for Organic Dairy Production in Kentucky and Tennessee. Southern Sustainable Agriculture Working Group Annual Conference. Lexington, KY. January 25-28.
- 2016 Kadnar, A.C., **K. Lea**, C. Gaskill, L. Smith and S.R. Smith. Ergovaline Stability in Stored Tall Fescue Samples. American Forage and Grassland Council Conference. Baton Rouge, LA. January 10-13.
- 2016 Kadnar, A.C., **K. Lea**, C. Gaskill, L. Smith and S.R. Smith. Ergovaline Stability in Stored Tall Fescue Samples. University of Kentucky Undergraduate Research Showcase. Lexington, KY. April 29.
- 2015 Smith, S.R., **K. Lea**. Developing Practical Pasture and Forage Diagnostic Tools. 4<sup>th</sup> Annual University of Kentucky Equine Showcase. Lexington, KY. January 23.
- 2015 Lea, K. The Ergot Alkaloid Enigma: Understanding Stability of Ergovaline in Tall Fescue. 4<sup>th</sup> Annual University of Kentucky Equine Showcase. Lexington, KY. January 23.
- 2015 Keene, T., S.R. Smith and **K. Lea**. Switchgrass Yield and Quality with Multiple Fertilizer Applications and Harvest Dates. American Forage and Grassland Conference. St. Louis, MO. January 11-14.
- 2014 **Cotten, K.**, R. Coleman, C. Gaskill, L. Smith and S.R. Smith. Effect of Sample Handling and Storage of Fresh Tall Fescue Samples on Ergovaline Concentration. American Forage and Grassland Council Annual Conference, Memphis, TN. Jan 12-14.
- 2013 Smith, S.R., **K. Cotten** and T. Keene. Can Pregnant Mares Graze Pastures Containing Tall Fescue: Practical Assessment Methods. American Forage and Grassland Council Conference, Covington, KY. January 6-8.
- 2013 Houben, A.M., **K. Cotten** and S.R. Smith. Comparison of Field and Lab Results for Determining Prussic Acid Levels of Sorghum-Sudangrass Varieties. American Forage and Grassland Council Conference, Covington, KY. January 6-8.
- 2013 Greene, E., S.R. Smith, **K. Cotten** and D. Davis. Comparison of Ergovaline Concentration in BarOptima Plus E34 Tall Fescue and Control Varieties. American Forage and Grassland Council Conference, Covington, KY. January 6-8.
- 2013 **Cotten, K.**, L. Smith, C. Gaskill, R. Coleman and S.R. Smith. Effect of Sample Handling and Storage on Ergovaline Concentration in Tall Fescue Samples. American Forage and Grassland Council Conference, Covington, KY. January 6-8.
- 2012 Smith, S.R., T. Keene and **K. Cotten**. Switchgrass Biomass Yield and Quality with Multiple Fertilizer Applications and Harvest Dates. ASA, CSSA and SSSA International Annual Meetings, Cincinnati, OH. October 21-24.
- 2012 Smith, S.R., T. Keene and **K. Cotten**. Switchgrass Biomass Yield and Quality with Multiple Fertilizer Applications and Harvest Dates. American Forage and Grassland Council Conference, Louisville, KY. January 9-11.

2012 Smith, S.R., L. Saylor, D. Davis, G. Roberts and **K. Cotten**. Determining the Effect of Mowing Height and Fertility on Orchardgrass Yield and Persistence. American Forage and Grassland Council Conference, Louisville, KY. January 9-11.

# **Departmental Seminars**

- 2019 Lea, K. Connecting the Equine Industry and Resource Conservation. Equine Forum. Lexington KY. October 25.
- 2019 Lea, K. Connecting the Equine Industry and Resource Conservation. Equine Advisory Committee. Lexington KY. December 12.
- 2018 Lea, K., Forage Extension Update. Equine Advisory Council. Lexington, KY. June 6.
- 2017 Lea, K. How We See Blue...Grass. Equine Advisory Council. Lexington, KY June 5.
- 2016 Lea, K. and A. Kadnar. Destination Unknown: Where Should Ergovaline Stability Research at UK Go in the Future? Forage and Grassland Discussion Group. Lexington, KY. May 19.
- 2014 Lea, K. Effect of Sample Handling and Storage on Ergovaline Concentrations in Tall Fescue Samples. Departmental Exit Seminar. January 27.
- 2013 Lea, K. Effect of Sample Handling and Storage on Ergovaline Concentrations in Tall Fescue Samples. Graduates Student Mini-Symposium, Department of Plant and Soil Sciences, University of Kentucky, Lexington, KY. August 27.
- 2013 **Cotten, K.** Effect of Tall Fescue Sample Handling and Storage on Ergovaline Concentrations. Forage and Grassland Discussion Group, University of Kentucky, Lexington, KY. February 12.
- 2012 Smith, S.R., C. Gaskill, L. Smith and **K. Cotten**. Developing and Promoting Field Level Testing for Nitrates, Cyanide and Ergovaline in Forages. Plant and Soil Sciences Departmental Seminar, University of Kentucky, Lexington, KY. December 7.

# Events Attended (\*Supported Event)

- 2020 \*Kentucky Alfalfa and Stored Forages Conference. Elizabethtown, KY. February 20.
- 2020 \*American Forage and Grassland Council Conference. Greenville, SC. January 5-7.
- 2019 \*American Forage and Grassland Council Conference. St. Louis, MO. January 7-9.
- 2018 \*American Forage and Grassland Council Conference. Louisville, KY. January 14-17.
- 2017 Equine Science Society Annual Conference. Minneapolis, MN. May 30 June 2.
- 2017 \*American Forage and Grassland Council Conference. Roanoke, VA. January 22-25.
- 2016 10<sup>th</sup> International Rangeland Congress. Saskatoon, Saskatchewan Canada. July 16-22.
- 2016 \*American Forage and Grassland Council Conference. Baton Rouge, LA. January 10-13.
- 2015 \*American Forage and Grassland Council Conference. St. Louis, MO. January 11-14.
- 2014 \*American Forage and Grassland Council Conference, Memphis, TN. January 12-14.
- 2014 Alfalfa Seminar and Purina Animal Nutrition Center Tour, St. Louis, MO. February 18-20.
- 2013 22<sup>nd</sup> International Grassland Congress, Sydney, Australia. September 15-19.
- 2013 \*American Forage and Grassland Council Conference, Covington, KY January 6-8.
- 2012 \*American Forage and Grassland Council Conference, Louisville, KY. January 11-13.
- 2011 \*American Forage and Grassland Council Conference, French Lick, IN. June 12-15.
- 2010 \*American Forage and Grassland Council Conference, Springfield, MO. June 21-23.

# EXTENSION

## Publications

- 2021 Lehmkuhler, J., K. VanValin, S.R. Smith, J. Henning, J. Tucker, C. Teutsch and **K. Lea.** Alfalfa for Beef Cows. National Alfalfa and Forage Alliance.
- 2021 Smith, S.R., **K. Lea**, J. Henning, D. Basigalup, and D. Putnam. Grazing Alfalfa, Economic and Sustainable Use of a High-Value Crop. National Alfalfa and Forage Alliance.
- 2021 Henning, J., **K. Lea**, S.R. Smith and C. Teutsch. Improving Kentucky Small Ruminant Pastures. AGR-264. April.
- 2019 Teutsch, C., K. Lea, R. Coleman and S.R. Smith. Improving Kentucky Horse Pastures.
- 2016 Smith, S.R., and **K. Lea**. Estimating Carrying Capacity of Cool-Season Pastures in Kentucky using Web Soil Survey (AGR-222). August.
- 2016 Keene, T., **K. Lea**, L. Schwer, and S.R. Smith. Wildlife Benefits of Switchgrass Production in Kentucky (AGR-221). July.

## Presentations

- 2021 Smith, S.R. and **K. Lea**. Quality Pasture for Quality Yearlings. University of Kentucky Equine Showcase. Virtual. January 5.
- 2021 Henning, J. and **K. Lea**. Establishing New Pasture. UK Equine Farm and Facilities Expo. September 28.
- 2021 Smith, S.R. and **K. Lea**. Wise Investments for Pasture Management. Pastures Please!! Virtual. January 26.
- 2020 **K. Lea**. Do More and Spend Less. Kentucky Equine Networking Association. Virtual. November 17.
- 2020 **K. Lea**. Doing More and Spending Less. Retired Racehorse Project Thoroughbred Makeover week. Virtual. October 5.
- 2020 K. Lea. Understanding the Horse Owner. Let's Speak Horse. Virtual. April 8.
- 2019 **K. Lea**. Horse Judging. Northern Kentucky Equine Conference, Youth Program. Burlington, KY. November 9.
- 2019 **K. Lea**. Which Hay for Your Horse? Northern Kentucky Equine Conference, Youth Program. Burlington, KY. November 9.
- 2019 **K. Lea**. Practical Evaluation of Pastures for Improved Grazing. Kentucky State University Third Thursday program. Frankfort KY. October 17.
- 2019 **K. Lea** and M. Clayton. Using Cost Share to Reduce Overgrazing. UK Equine Field Day. Princeton, KY. Sept. 5.
- 2019 Smith, S.R. and K. Lea. How to Access Pasture and Determine Potential Impact on Animal Health. Food Animal Veterinary Continuing Education. Lexington, KY. August 8.
- 2019 Lea, K. Overgrazing and Soil Degradation on KY Horse Farms. KY State Technical Committee Meeting. June 5.
- 2019 Lea, K. Managing Mud. Kentucky Equine Networking Association. Lexington, KY. May 21.
- 2019 Lea, K. Pasture Management. Recreational Rider Day. Ashland, KY. March 30.

- 2019 Lea, K. and R. Coleman. Understanding the Horse Owner. Engaging the Horse Industry in Resource Conservation. Lexington, KY. February 26.
- 2019 Lea, K. and K. McDowell. How Novel: Safe Tall Fescue Varieties for All Classes of Horses. Pastures Please!! Harrodsburg, KY. January 28.
- 2019 Smith, S.R., and **K. Lea**. Novel Fescue, Toxic Fescue, & How UK Can Help You. Equine Veterinary Continuing Education. January.
- 2018 Lea, K. Pasture Growth. Northern Kentucky Equine Conference. Burlington, KY. November 10.
- 2018 Lea, K. Improving and Managing Horse Pastures. Burkesville, KY. September 13.
- 2018 Smith, S.R. and **K. Lea**. Reseeding for Winning Pastures: Your Morning Line Favorite. Pastures Please!! Georgetown, KY. January 22.
- 2017 Smith, S.R., and **K. Lea.** Kentucky Grazing Conferences Proceedings Editors. Lexington and Hopkinsville, KY. February 17 and 18.
- 2017 Smith, S.R., and **K. Lea.** 36<sup>th</sup> Annual Kentucky Alfalfa and Stored Forages Conference Proceedings Editors. Cave City, KY. February 21.
- 2017 Lea, K. Managing to Reduce Tall Fescue Toxicosis. Pastures Please!! Lexington, KY. January 30.
- 2016 Smith, S.R. and **K. Lea.** 22<sup>nd</sup> Forages at Kentucky Cattlemen's Association Proceedings Editors. Lexington, KY. January 21.
- 2016 Lea, K. and M. Simon. Pasture Evaluation and Management. Scott County Farm-City Field Day. Georgetown, KY. July 15.
- 2016 Lea, K. Pasture Plant Identification and Pasture Management (hands-on lectures). Equine Nutrition Short Course. Lexington, KY. May 14.
- 2016 Lea, K. and S.R. Smith. Optimizing Forage Production for Grass Fed Beef and Dairy. Organic Association of Kentucky Annual Conference. Shepherdsville, KY. March 5.
- 2016 Smith, S.R. and **K. Lea**. Forage Growth and Development and Application on Your Farm. Applied Master Cattlemen. Clinton County, KY. February 29.
- 2016 Smith, S.R. and **K. Lea**. Heart of America Grazing Conference, proceedings editor. Lexington, KY. January 25-26.
- 2016 S.R. Smith and **K. Lea**. Forages at KCA, proceedings editor. Kentucky Cattlemen's Association Annual Conference. Owensboro, KY. January 15-16
- 2015 Lea, K. and S.R. Smith. Managing Mud on Horse Pastures. All American Quarter Horse Congress. Columbus, OH. Oct. 10.
- 2015 Lea, K. Managing Forages on Horse Farms. Thoroughbred Owners and Breeders Association Breeding Clinic, Lexington, KY. May 17
- 2014 Lea, K. Understanding Forages for Horses. Kentucky Equine Management Internship. Lexington, KY. August 19.
- 2014 Lea, K. Understanding Forages for Horses. Thoroughbred Owners and Breeders Association Breeding Clinic, Lexington, KY. May 30-June 1.
- 2013 Lea, K. Understanding Forages for Horses. Kentucky Equine Management Internship, Lexington, KY. October 9.
- 2013 Lea, K. Horse Pasture Management in Kentucky, USA. Masters in Equine Science program at University of Edinburgh. October (presentation was recorded and shared).
- 2013 **Cotten, K.** Understanding Forages for Horses. Thoroughbred Owners and Breeders Association Breeding Clinic, Lexington, KY. May 31-June 2.

- 2013 **Cotten, K.** Understanding Pasture Evaluation and Management. Kentucky Equine Management Internship, Lexington, KY. April 30.
- 2013 Keene, T.C. and **K. Cotten**. Forage Innovations that Improve Production and Make You More Money. Professional Crop Producers Conference, Lancaster, PA. February 19-21.
- 2013 Smith, S.R. and **K. Cotten**. Proven methods to Reestablish Horse Pasture. Pastures Please!, Lexington, KY. February 18.
- 2013 Smith, S.R. and **K. Cotten**. Evaluating and Maintaining Your Pastures. 4<sup>th</sup> Annual Kentucky Breeders' Short Course, Lexington, KY. January 19.
- 2012 Smith, S.R. and **K. Cotten**. Pasture Management Concepts for the Horse Farm Manager. 14<sup>th</sup> annual Hagyard Bluegrass Symposium, Lexington, KY. November 1-4.
- 2012 **Cotten, K.** Practical Pasture Management for Horse Farms. Kentucky Equine Management Internship, Lexington, KY. October 25.
- 2012 **Cotten, K.** and S.R. Smith. New Findings in Understanding and Managing Tall Fescue and the Endophyte in Kentucky Horse Pastures. Kentucky Association of Equine Practitioners, Lexington, KY. October 24.
- 2012 Smith, S.R. and **K. Cotten**. Fertility Management in Horse Pastures. Pastures Please!. Winchester, KY. January 31.
- 2012 Smith, S.R., T. Keene and **K. Cotten**. Horse Pastures: How Much Tall Fescue is Too Much? Kentucky Cattlemen's / Kentucky Horse Council Annual Conference. Lexington, KY. January 12-14.
- 2011 Smith, S.R. and **K. Cotten**. Managing Pastures While Grazing. Kentucky Equine Networking Association, Lexington, KY. May 19.
- 2011 Smith, S.R. and **K. Cotten**. Equine Pasture Establishment after Dry Summer and Fall. Pastures Please!! Georgetown, KY. February 1.
- 2011 Smith, S.R. and **K. Cotten**. Small Acreage Management. Kentucky Horse Council Annual Conference. Lexington, KY. January 13-14.

# UK Equine Science Review (previously the Bluegrass Equine Digest) Articles

- 2021 Lea, K. and S.R. Smith. Warmer Weather May Impact Early Foaling Mare Pastures. December.
- 2021 Lea, K. Stretching Dollars to Stretch Pastures. November.
- 2021 Lea, K., S.R. Smith, J. Henning, and C. Teutsch. Selecting Hay for Your Horse: Separating the Facts from the Fiction. June.
- 2021 Lea, K. Pasture Management Begins with Good Scouting. April.
- 2021 Lea, K. and J. Henning. Justifying Kentucky 31 Tall Fescue No More. February.
- 2021 Lea, K., and S.R. Smith. An Equine New Year's Resolution: Better Pasture Management. January.
- 2020 Teutsch, C., and K. Lea. Optimizing Existing Forage Resources. December.
- 2020 Lea, K. Rotational Grazing on Horse Farms. October.
- 2020 Lea, K. and J. Henning. Roots: Building Healthier Pastures from the Ground Up. September.
- 2020 Lea, K. and J. Henning. Which Grasses Should you Plant in Your Pastures? Seed Selection for Pasture Renovation. August.
- 2020 Lea, K. Complete Pasture Renovation. July.
- 2020 Lea, K. and S.R. Smith. Tall Fescue Risk Measured Through Field and Manure Measurements. May.

- 2020 Lea, K. UK receives National Conservation Innovation Grant for Horse Pasture Work. April.
- 2020 Witt, B., C.J. Leow, **K. Lea** and S.R. Smith. Preliminary Results for New Herbicide for Warm Season Grass Control in Horse Pastures. April.
- 2019 Gaskill, C., S.R. Smith, **K. Lea**. Clip Horse Pastures to Reduce Ergot Poisoning Risk. June.
- 2019 Romano, M., S.R. Smith and **K. Lea.** Buttercups in Horse Pastures: Are They Dangerous? June.
- 2019 Witt, W., K. Lea, and S.R. Smith. Controlling Grassy Weeds in Horse Pastures. March.
- 2018 Lea, K., S.R. Smith, R. Coleman. Hay Feeding and Storage: 'Tis the Season to Cut Expenses. November.
- 2018 Lea, K., S.R. Smith, and L. McClanahan. Utilizing Cost-Share Programs on Horse Farms. October.
- 2018 Lea, K. and S.R. Smith. Fall Nitrogen Application Benefits Pastures Year-Round. September.
- 2018 Lea, K. Growing Pastures From the Ground Up. April.
- 2018 Lea, K. and J. Henning. Fertilizing Cool-Season Horse Pastures. February.
- 2017 Lea, K. Reseeding Success: Improving Pastures Through Renovations. November.
- 2017 Lea, K. And T.C. Keene. Evaluating Horse Pastures in Fall: Green is Good, Brown is Bad. October.
- 2017 Lea, K., S.R. Smith, T.C. Keene, C. Teutsch and J. Henning. Selecting Hay for Your Horse: Separating Fact from Fiction. September.
- 2017 Lea, K., and S.R. Smith. Winterizing Pastures Starts in Fall. August.
- 2017 Lea, K., and S.R. Smith. Quick Fixes for Pastures. July.
- 2017 Lea, K. Warm-Season Tips for Cool-Season Pastures. May.
- 2017 Lea, K. Fertilizing Cool-Season Horse Pastures. February.
- 2016 Romano, M., **K. Lea,** C. Gaskill, and S.R. Smith. Dallisgrass Makes a Rare Impact on Kentucky Horse Operation. November.
- 2016 Lea, K. UK Horse Pasture Evaluation Work Showcased at Rangeland Congress in Canada. August.
- 2016 Lea, K. Old Friends Hosts Field Day, Highlights Pastures Improvements. August.
- 2016 Lea, K., and S.R. Smith. Tips for Overseeding Fall Horse Pastures. July.
- 2016 Kadnar, A. and K. Lea. UK, USDA Researchers Live by the Word "Collaboration". July
- 2016 Lea, K. Use Caution When Bedding Horses on Rye Straw. June
- 2016 Lea, K. Research Prompts New Tall Fescue Sample Handling Procedures. May.
- 2016 Lea, K., S.R. Smith. Simple Steps to Improving Pasture Management. February.
- 2016 Lea, K., S.R. Smith and T.C. Keene. Square Peg, Round Hole: Understanding Round vs. Square Bale Hay for Horses, part 2. January
- 2015 Lea, K., S.R. Smith and T.C. Keene. Square Peg, Round Hole: Understanding Round vs. Square Bale Hay for Horses, part 1. December.
- 2015 Lea, K. and S.R. Smith. *The Grass Guide*. Monthly series running.
- 2015 Lea, K. Slobbers in Horses. July.
- 2015 Lea, K., B. Coleman. Using Electric Fence to Improve Pastures. March.
- 2015 Lea, K., S.R. Smith, G. Olson. Know Your Pasture Grass. February.
- 2015 Lea, K., S.R. Smith, M. Hall and J. Johnson. An Equine New Year's Resolution: Better Pasture Management. January.

- 2014 Lea, K., S.R. Smith and T. Keene. UK Horse Pasture Evaluation Program: 10-Year Review. December.
- 2014 Lea, K., S. R. Smith and T. Keene. Equipment for Managing Horse Pastures. November.
- 2014 Lea, K., S.R. Smith and T. Keene. Myths about Hay Selection. October
- 2014 Lea, K. and S.R. Smith. Growing your Bedding: The Good, the Bad and the Ugly. September
- 2014 Prince, K., **K. Lea** and S.R. Smith. Recommendations for Overseeding Horse Pastures. August 29.
- 2014 Prince, K., K. Lea and S.R. Smith. Grazing Summer Grasses: What to Expect. July.
- 2014 Prince, K., K. Lea and S.R. Smith. When and How to Re-Establish Horse Pasture. June.
- 2014 Lea, K. How Many Horses Can Your Farm Hold? May.
- 2014 Lea, K., C. Gaskill, S.R. Smith. Tall Fescue Testing: Understanding the Numbers. April.
- 2014 Lea, K. and S.R. Smith. Spring Pasture Management Do's and Don'ts. March.
- 2013 Lea, K. Lessons in Agriculture from the Land Down Under. November.
- 2013 Lea, K. Fescue Sample Handling, Storage can Affect Analysis Results. November.
- 2013 **Cotten, K.** UK's Horse Pasture Evaluation Program Identifies Kentucky Pasture Trends. February.
- 2012 Cotten, K. and S.R. Smith. Fall Pasture Management Following a Drought. August.
- 2011 Smith, S.R. and **K. Cotten**. University of Kentucky Pasture Evaluation Program Enjoys Continued Success. February.
- 2011 Smith, S.R. and K. Cotten. Managing Mud on Horse Farms. The Bloodhorse. March.
- 2011 Smith, S.R. and K. Cotten. Managing Mud on Kentucky Horse Farms. February.
- 2010 Smith, S.R. and K. Cotten. Overseeding Horse Pastures In Central Kentucky. August.

# Other Popular Press Articles

- 2020 Franklin, J. Pasture Renovation a Plus for Iconic Spendthrift Farm. September. https://news.ca.uky.edu/video/pasture-renovations-plus-iconic-spendthrift-farm-video
- 2019 Franklin, J. Couple comes full circle with UK through horses and pastures. September. https://www.youtube.com/watch?v=k2yboX3xAlg
- 2018 Franklin, J. Mill Ridge Farm Sees Success from UK Horse Pasture Evaluation Program. August 22.
- 2017 UK Ag. News. Warm Winter Could Affect Tall Fescue Toxicosis in Broodmares. Press Release. February 8.
- 2016 UK Ag. News. Use Caution when Using Rye Straw for Bedding. Press Release. June 7.
- 2015 Smith, S.R. and K. Lea. Forage News, Editor Oct. 2015 present.
- 2014 Smith, S.R., **K. Lea**, K. Prince and D. Hancock. Fall Establishment of Cool Season Grass Pastures. The Forage Leader. September.
- 2014 Smith, S.R., **K. Lea**. Summer Forage Tours are a Great Educational Opportunity. Progressive Forage Grower. May.
- 2011 Smith, S.R., K. Sena and **K. Cotten**. Switchgrass Stories: UK's Switchgrass Biomass Project. EcoLearnIT online learning module, published January 2011. http://ecolearnit.ifas.ufl.edu/viewer.asp?rlo\_id=467
- 2011 Smith, S.R., K. Sena and **K. Cotten**. Switchgrass for Biomass Project: Highlights from the University of Kentucky. EcoLearnIT online learning module, published January 2011. http://ecolearnit.ifas.ufl.edu/viewer.asp?rlo\_id=466

2011 Smith, S.R., K. Sena and **K. Cotten**. A Decision Aid for Switchgrass for Biomass vs. Hay Production. EcoLearnIT online learning module, published January 2011. http://ecolearnit.ifas.ufl.edu/viewer.asp?rlo\_id=443

YEAR	<b># FARMS</b>	# ACRES	<b># FARM ACRES</b>
2021	27	3,452	6,377
2020	29	2,664	8,920
2019	24	3,792	9,839
2018	17	1,866	4,721
2017	20	1,557	3,723
2016	14	1,519	3,785
2015	15	1,325	3,383
2014	17	2,051	6,604
2013	18	1,869	4,452
2012	18	1,638	3,882
2011	15	879	1,309
2010*	11	437	1,026

#### UK Horse Pasture Evaluation Program

\*Assistant Program Coordinator

## **Events Supported**

- 2021 UK Equine Farm and Facilities Expo. Lexington, KY. September 28.
- 2021 KY Alfalfa and Stored Forages Conference. Virtual. March 2-4.
- 2021 Novel Tall Fescue Renovation Workshop. Lexington, KY. March 25.
- 2021 Pastures Please!! Virtual. January 26.
- 2020 Novel Tall Fescue Renovation Workshop. Lexington, KY. March 19.
- 2020 Let's Speak Horse. Virtual. April 8.
- 2020 KY Alfalfa and Stored Forages Conference. Elizabethtown. February 20.
- 2020 Pastures Please!! Lexington, KY. January 27.
- 2019 Heart of America Grazing Conference. Burlington, KY. October 29-30.
- 2019 Kentucky Grazing School. Versailles, KY. September 10-11.
- 2019 UK Equine Field Day. Princeton, KY. September 5.
- 2019 KFGC Central Kentucky Field Day. Nerinx, KY. August 24.
- 2019 Western KY Summer Forage Field Day. Horse Branch, KY. August 6.
- 2019 KY Fencing School. Russellville, KY. May 30.
- 2019 UK Equine Farm and Facilities Expo. Lexington, KY. May 30.
- 2019 KY Forage Workers Tour. Northern KY. May 7-8.
- 2019 Spring Grazing School. Princeton, KY. April 23.
- 2019 KY Fencing School. Burkesville, KY. April 11.
- 2019 KY Fencing School. Lexington, KY. April 9.
- 2019 Novel Tall Fescue Renovation Workshop. Princeton, KY. March 20.
- 2019 Engaging the Horse Industry in Resource Conservation. Lexington, KY. February 26.
- 2019 Small Ruminant Grazing Conference. Morehead, KY. February 23.

- 2019 KY Alfalfa and Stored Forages Conference. Lexington, KY. February 21.
- 2019 Pastures Please!! Harrodsburg, KY. January 28.
- 2018 KY Grazing Conference, East. Winchester, KY. November 1.
- 2018 KY Grazing Conference, West. Hopkinsville, KY. October 30.
- 2018 Kentucky Grazing School. Versailles, KY. September 25-26.
- 2018 Western Kentucky Summer Forage Tour. LaCenter, KY. August 7.
- 2018 UK Equine Farm and Facilities Expo. Harrodsburg, KY. August 6.
- 2018 Western Horse Industry Agent Education Tour. Texas, Oklahoma, Missouri. May 13-23.
- 2018 Kentucky Grazing School. Princeton, KY. April 24-25
- 2018 Novel Tall Fescue Renovation Workshop. Lexington, KY. March 8.
- 2018 Kentucky Fencing School. Versailles, KY. March 22.
- 2018 Kentucky Fencing School. Princeton, KY. March 20.
- 2018 Alfalfa and Stored Forages Conference. Cave City, KY. February 22.
- 2018 Pastures Please!! Georgetown, KY. January 22.
- 2017 Kentucky Grazing Conferences. Lexington and Hopkinsville, KY. October 17 and 18.
- 2017 Equine Farm and Facilities Expo. New Vocations, Lexington, KY. June 8.
- 2017 Novel Tall Fescue Renovation School. Lexington, KY. March 9.
- 2017 36<sup>th</sup> Annual Alfalfa and Stored Forages Conference. Cave City, KY. February 21.
- 2017 Pastures Please!! Lexington, KY. January 30.
- 2016 16<sup>th</sup> Kentucky Grazing Conference. Owensboro, KY. October 19.
- 2016 Kentucky Forage and Grassland Council Annual Field Day. September 13.
- 2016 Equine Nutrition Short Course. Lexington, KY. May 14.
- 2016 Special Forage Seminar with Dr. Joe Bouton. Lexington, KY. March 8.
- 2016 Heart of America Grazing Conference. Lexington, KY. January 25-26.
- 2016 Pastures Please!! Versailles, KY. February 2.
- 2015 7<sup>th</sup> Annual Equine Farm and Facilities Expo. Magdalena Farm, Lexington, KY. June 2.
- 2015 35<sup>th</sup> Kentucky Alfalfa Conference. Cave City, KY. February 26.
- 2015 Pastures Please!! Lexington, KY. February 5.
- 2014 15<sup>th</sup> Kentucky Grazing Conference. Bowling Green, KY. October 23.
- 2014 Draft Horse Field Day. Asbury University, Wilmore, KY. June 20.
- 2014 Equine Farm and Facilities Expo. Kentucky Equine Humane Center, Nicholasville, KY. June 3.
- 2014 34<sup>th</sup> Kentucky Alfalfa Conference, Lexington, KY. February 20.
- 2014 Pastures Please!! Georgetown, KY. February 6.
- 2014 Kentucky Small Ruminant Grazing Conference, Lexington, KY. February 1.
- 2013 14<sup>th</sup> Kentucky Grazing Conference. Lexington, KY. October 10.
- 2013 Equine Farm and Facilities Exp. Toll Gate Farm, Georgetown, KY. June 19.
- 2013 Locust Trace Field Day. Locust Trace AgriScience Farm, Lexington, KY. April 23.
- 2013 33<sup>rd</sup> Kentucky Alfalfa Conference, Lexington, KY. February 21.
- 2012 32<sup>nd</sup> Kentucky Alfalfa Conference, Cave City, KY. February 23.
- 2012 Alltech FEI World Equestrian Games. Kentucky Horse Park, Lexington, KY. September 25 October 10
- 2012 Hats Off to Kentucky's Horse Industry. Kentucky Horse Park, Lexington, KY. August 4.
- 2012 Equine Farm and Facilities Expo. Margaux Farm, Midway, KY. May 31.
- 2012 Rolex Kentucky 3 Day Event. Lexington, KY. April 26-29.
- 2011 National Horse Show. Kentucky Horse Park, Lexington, KY. November 5.

- 2011 Kentucky Grazing Conference, Bowling Green, KY. October 13.
- 2011 Draft Animal Field Day. Asbury University, Wilmore KY. September 12.
- 2011 College of Agriculture All Commodities Field Day, Princeton, KY. July 21.
- 2011 Cool-Season Grass Workshop, French Lick, IN. June 16.
- 2011 Equine Farm and Facilities Expo. Shawhan Place Farm, Paris, KY. June 7.
- 2011 Master Grazer Grazing School, Princeton, KY. April 14-15.
- 2011 31<sup>st</sup> Kentucky Alfalfa Conference, Lexington, KY. February 24.
- 2011 Heart of America Grazing Conference, Louisville, KY. January 25-26.
- 2011 Kentucky Cattlemen's Association / Kentucky Horse Council Joint Annual Conference, Lexington, KY. January 14.
- 2010 Hats Off to Kentucky's Horse Industry. Kentucky Horse Park, Lexington, KY. August 7.
- 2010 Equine Farm and Facilities Expo. Spy Coast Farm, Lexington, KY. June 1.

# TEACHING

## **Classes Taught**

- 2022 Pasture Management. Midway University. Midway, KY.
- 2015 Farm and Ranch Management, forages section. Asbury University, Wilmore KY.

### **Guest Lecturing**

- 2021 Lea, K. Maximizing the Value of Pasture. EQM 490 Capstone. University of Kentucky. October 21
- 2021 Lea, K. Pasture Evaluation and Management. ASC 320 Equine Management, University of Kentucky. October 6-8
- 2021 Lea, K. Practical Horse Pasture Management. Kentucky Equine Management Internship Program. August 16.
- 2021 Smith, S.R., **K. Lea** and E. Gotsick. Pasture Evaluation and Management. PLS 320 Agricultural and Ecosystem Sciences Field Experience. August 12
- 2021 Lea, K. Pasture Management: Putting it all together. PLS 510 Forage Production and Management. University of Kentucky. April 30
- 2021 Lea, K. Pasture Evaluation and Management. EQM 205 Forages and Feeding. Asbury University. April 20
- 2021 Lea. K. Maximizing the Value of Pasture. EQM 490 Capstone. University of Kentucky. April 8.
- 2020 Lea, K. and J. Henning. PLS 386 Plant Production Systems. University of Kentucky. November 9.
- 2020 Lea, K. Pasture Growth. Equine Facilities. University of Kentucky. February 27.
- 2020 Lea, K. Pasture Concepts for Future Farm Managers. Kentucky Equine Management Internship. April 21.
- 2020 Lea, K. Pasture Evaluation and Management. ASC 320 Equine Management, University of Kentucky. October 1-2.
- 2019 Lea, K. Connecting the Equine Industry and Resource Conservation. EQM 305 Equine Industry Issues, University of Kentucky. November 13.

- 2019 Lea, K. Pasture Evaluation and Management. ASC 320 Equine Management, University of Kentucky. October 9-11.
- 2019 Lea, K. UK Horse Pasture Evaluation Program. PLS 510, Forage Management and Utilization. University of Kentucky. April 8.
- 2019 Lea, K. Pasture Evaluation and Management. Forage and Feeding, Asbury University. April 11.
- 2018 Lea, K. Pasture Evaluation and Management. ASC 320 Equine Management, University of Kentucky. October 8-12.
- 2017 Lea, K. Pasture Evaluation and Management. ASC 320 Equine Management, University of Kentucky. October 9-13.
- 2017 Lea, K. Pasture Management 101, Otterbein University. Westerville, OH. October 6.
- 2016 Lea, K. and C. Coleman. Beyond the Barn: Equine Career Tour. Lexington, KY. September 10.
- 2014 Keene, T.C. and **K. Cotten.** Managing and Evaluating Horse Pastures in ASC 320 Equine Management, University of Kentucky, Lexington KY. Lecture and Laboratory. October.
- 2013 Keene, T.C. and **K. Cotten.** Managing and Evaluating Horse Pastures in ASC 320 Equine Management, University of Kentucky, Lexington KY. Lecture and Laboratory. October.
- 2012 Keene, T.C. and **K. Cotten**. Managing and Evaluating Horse Pastures in ASC 320 Equine Management, University of Kentucky, Lexington KY. Lecture and Laboratory. October.
- 2011 Keene, T.C. and **K. Cotten**. Managing and Evaluating Horse Pastures in ASC 320 Equine Management, University of Kentucky, Lexington KY. Lecture and Laboratory. October.
- 2011 **Cotten, K.** Horse Pasture Evaluation Program at the University of Kentucky. Midway College, Midway, KY. April 20.

# Seminars and Conferences Attended

2014 National Association of Equine Affiliated Academics, Louisville, KY. June 24-27.

# AWARDS AND GRANTS

- 2021 Producer and Consumer Survey: Increasing Alfalfa Hay Sales to Horse Owners. National Alfalfa and Forage Alliance. \$27,082.
- 2020 Ecological and Economic Benefits of Resource Conservation on Horse Farms. Conservation Innovation Grant (USDA). \$723,359.
- 2020 Alfalfa for Beef Cows publication update. National Alfalfa and Forage Alliance. \$9,464. Awarded April 2020.
- 2019 Grazing Alfalfa publication update. National Alfalfa and Forage Alliance. \$4,714. Awarded July 2019.
- 2019 AFGC Early Career Award. January.
- 2018 KFGC Public Service Award (State). November.
- 2018 Outstanding Staff Award. September 26.

- 2016 University SuperVision. University of Kentucky human Resources Training and Development, New Supervisor Training Program. October 11.
- 2016 Charles E. Barnhart Fund for Excellence. Beyond the Barn Equine Career Tour. Lexington, KY. September 10. \$468.
- 2016 Forage and Grassland Foundation Grant awarded to attend the International Rangeland Congress, Saskatoon, Saskatchewan, Canada. July 18-22. \$1,400.
- 2016 Natural Resource Conservation Service (NRCS) grant. Overgrazing and Soil Degradation on Horse Farms. Awarded \$470,000 over 3 year period.
- 2014 3<sup>rd</sup> place in Emerging Scientist Contest, American Forage and Grassland Council Conference, Memphis, TN. January 12-14.
- 2013 Grassland Foundation Board grant awarded to attend the 22<sup>nd</sup> International Grassland Congress, Sydney, Australia. \$2,000.
- 2013 2<sup>nd</sup> place in Master's division of Graduate Student Mini-Symposium, Dept. of Plant and Soil Sciences, University of Kentucky, Lexington, KY. August 27.
- 2013 Grad Student Spotlight in Bluegrass Equine Digest, April issue.
- 2010 1<sup>st</sup> place Forage Bowl Team at American Forage and Grassland Council Conference, Springfield, MO. June 21-23.

# COMMITTEES, MEMBERSHIPS and CERTIFICATIONS

Certified Forage and Grassland Professional College of Agriculture Equine Forum Meetings Equine Strategic Planning Committee and Communications Subcommittee Forage and Grassland Discussion Group Kentucky Department of Agriculture Non-Commercial Pesticide License (cat. 10) Kentucky Equine Management Internship Alumni Association Founding Committee/Board Kentucky Equine Management Internship Alumni Mentoring Committee Chair Kentucky Equine Networking Association Kentucky Horse Council Member Kentucky Thoroughbred Farm Managers Club Associate Member National Forage Bowl Competition Chair NRCS Technical Service Provider UK Pasture and Forage Working Group

# SERVICE TO INDUSTRY

- 2017 4H Teen Conference. Understanding Horse Pastures. Lexington, KY. June 14.
- 2017 Farm Tour for students at The Academy for Leadership at Millcreek Elementary. June 14.
- 2017 Regions of Kentucky Agriculture. The Academy for Leadership at Millcreek Elementary. April 12.
- 2016 Kentucky State 4H Horse Judging Contest. Lexington, KY. June 1.

- 2015 Proficiency Judge at the National FFA Convention, Equine Management. Louisville, KY. October 29.
- 2014 Proficiency Judge at the National FFA Convention, Forage Production, Louisville, KY. October 30.
- 2014 Mt. Pleasant Vacation Bible School, Nicholasville, KY June 22-26.
- 2014 State 4-H Horse Judging Contest
- 2011 Eastern Nationals 4-H Horse Show and Contest, Louisville, KY. November 5.
- 2010 Mt. Pleasant Vacation Bible School, Nicholasville, KY.
- 2010 Kentucky State 4-H Horse Show, Louisville, KY.
- 2009 University of Kentucky Horse Judging Team.
- 2006 West Texas A&M Equestrian Team.

## STUDENT SUPERVISION

YEAR	STUDENT	SCH	PROJECT
2021	Elizabeth Clark	UK	IGC/IRC Posters/UK Horse Pasture Evaluation
2020 - 2021	Reilly Fardy	UK	UK Horse Pasture Health Scorecard Publication
2020	Echo Gotsick	UK	UK Horse Pasture Evaluation Program
2019	Sydney Beidleman	Graduate	UK Horse Pasture Evaluation
2019	Rebecca Piche	Asbury	McDowell Pasture Monitoring
2019	Nat Colten	UK	Organic Dairy Forages
2019	Thomas Seebold	Louisville	Broomsedge Fertility (Henning)
2019	Kelsey Hargadon	UK	Pasture Evaluation Techniques
2019	Chi Jing Leow	Asbury	Weedy Grass Control Methods (Witt)
2018	Emma Lynch	Asbury	McDowell Pasture Monitoring
2018	Sarah Rhodes	Asbury	Organic Dairy Research/University of Tennessee
2018	Audrey Johnson	UK	UK Horse Pasture Evaluation/ARS TF Monitoring
2018	Haley Zynda	UK	UK Horse Pasture Evaluation Program/Master Grazer
2017 - 2018	Becca Puglisi	UK	Week Long Sugar Sampling/UK Horse Pasture Evaluation Lead
2017-2018	Alex Teutsch	UK	Grinding/Nimblewill Control Study
2014 - 2017	Sydney Beidleman	UK	UK Horse Pasture Evaluation
2017	Anna Intartaglio	UK	UK Horse Pasture Evaluation/McDowell Pasture Monitoring
2017	Olivia Dombi	UK	Nimblewill Control Study
2017	Savannah Neese	Asbury	Organic Dairy Research/University of Tennessee
2017	Kelly Hagan	Asbury	Low Lignin Research/Cornell University
2016	AnnMarie Kadnar	UK	Ergovaline Stability
2016	Julia Becker	UK	UK Horse Pasture Evaluation
2016	Thane Anderson	Toledo	UK Horse Pasture Evaluation
2016	Savannah Taylor	Asbury	Organic Dairy Research/University of Tennessee
2015 - 2016	Meredith Anderson	Asbury	Sugar Concentrations in Cool Season Legumes
2015	Megan Baker	EKU	UK Horse Pasture Evaluation
2015	Christine Voll	UK	UK Horse Pasture Evaluation
2012-2013	Kelly Prince	UK	UK Horse Pasture Evaluation
2014	Marissa Zatezalo	Asbury	
2014	Adam Crisologo	Asbury	
2014	Friend Bechtel	Asbury	Time lapse Photography
2014	Joo Won Jun	Asbury	

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2013	Veronica Bill	UK	UK Horse Pasture Evaluation
2013	Peter Robuck	Asbury	
2013	Kristen Cory	Asbury	Wildlife Populations in Switchgrass Stands
2013	Audrey Boslego	UK	UK Horse Pasture Evaluation
2013	Anna Taylor	UK	UK Horse Pasture Evaluation
2012	Alex Sizemore	Asbury	Impacts on Small Mammal Biodiversity of Converting Abandoned Farmland to Switchgrass
2012	Jacy Richie	Asbury	Assessment of Pasture Evaluation Methods
2012	Anna Houben	Asbury	Toxicity Levels of Cyanide in Sorghum-sudangrass at Varying Stages of Growth
2012	Micah Moore	Asbury	Determination of Parthenolide Concentration in Feverfew Baled at Different Moisture Concentrations
2011	Kenton Sena	Asbury	Converting Abandoned Farmland to Switchgrass: Assessing Impact on Small mammal Relative Abundance
2011	Erin Greene	Asbury	Ergovaline Concentrations in Novel Tall Fescue
2011	Leah Saylor	Asbury	Determination of causes of Orchargrass decline in the Eastern US
2011	Julianne Wyrick	Asbury	Nitrate Toxicity of Sorghum-sudangrass in Organic and Conventional Systems
2010	Rhonda Beasley	Asbury	Determination of Grass Preference of Horses on pasture Using Near-Infrared Reflectance Spectroscopy (NIRS)
2010	Evan Duszynski	Asbury	Habitat Repercussions of Converting Abandoned Farmland to Switchgrass ( <i>Panicum virgatum</i> L.)
2010	Joel Noah	Asbury	Tall Fescue Endophyte Concentration During Growing Season, Full Maturity and After Cutting

# Dr. James N. MacLeod

College of Agriculture, Food and Environment Department of Veterinary Science

#### Education

Endocrine Fellowship, University of Pennsylvania, 1992. Major: Genetics and endocrinology

PhD, University of Pennsylvania, 1990. Major: Pathology Supporting Areas of Emphasis: Biochemistry

VMD, University of Pennsylvania, 1984. Major: Veterinary Medicine (DVM)

BS, University of Delaware, 1980. Major: Animal Sciences Supporting Areas of Emphasis: Biology/Biological Sciences

# **Administrative Assignments**

Director of Equine Programs. October 1, 2019 - Present

Director of the Equestrian Sports Research Initiative. January 1, 2016 - Present Responsibilities: Provide leadership and work as a liaison between CAFE Administration, UK Ag Equine Programs, and other academic units, and key stakeholders in developing an equine sports medicine program.

Director of Equine Programs (Equine Initiative). 2008 - 2011

# **Research and Scholarship**

(selected from 146 Google Scholar entries)

Equine reference genome- studies to generate and improve the equine reference genome.

- Wade CM, Giulotto E, Sigurdsson S Zoli M, Gnerre S, Imsland F, Lear TL, Adelson DL, Bailery E, Bellone RR, Blöcker H, Distl O, Egar RC, Garber M, Leeb T, Mauceli E, MacLeod JN, Penedo MCT, Raison J M, Sharpe T, Vogel J, Andersson L, Antczak DF, Biagi T, Binns MM, Chowdhary BP, Coleman SJ, Della Valle G, Fryc S, Guérin G, Hasegawa T, Hill EQ, Jurka J, Kiialainen A, Lindgren G, Liu J, Magnani E, Mickelson JR, Murray J, Nergadze SG, Onofrio R, Pedroni S, Piras MF, Raudsepp T, Rocchi M, Røed KH, Ryder OA, Searle S, Skow L, Swinburne JE, Syvänen AC, Tozaki T, Valberg SJ, Vaudin M, White JR, Zody MC, Broad Institute Genome Sequencing Platform; Broad Institute Whole Genome Assembly Team; Lander ES, Lindblad-Toh K. Genome sequence, comparative analysis and population genetics of the domestic horse (*Equus caballus*). *Science*, 2009 Nov 6;326(5954):865-7. PMCID: PMC3785132.
- Kalbfleisch TS, Rice RS, DePriest MS Jr, Walenz BP, Hestand MS, Vermeesch JR, O'Connell BL, Fiddes IT, Vershinina AO, Saremi NF, Petersen JL, Finno CJ, Bellone RR, McCue

ME, Brooks SA, Bailey E, Orlando L, Green RE, Miller DC, Antczak DF, MacLeod JN. EquCab3: Improved reference genome for the domestic horse increases assembly contiguity and composition. Nature – Communications Biology, 2018 Nov 16;1:197. PMCID: PMC6240028.

MacLeod JN, Kalbfleisch TS. Genetics, Genomics, and Emergent Precision Medicine 12 Years after the Equine Reference Genome was Published. *Veterinary Clinics of North America Equine Practice*. 2020 Aug;36(2):173-181. PMID: 32654780

Structural annotation of protein-coding genes in the equine genome.

- Coleman SJ, Zeng Z, Wang K, Luo S, Khrebtukova I, Mienaltowski MJ, Schroth GP, Liu, J., MacLeod JN. Structural annotation of equine protein-coding genes determined by mRNA sequencing. *Animal Genetics*, 2010 Dec;41 Suppl 2:121-30PMID: 21070285
- Coleman SJ, Zeng Z, Hestand MS, Liu, J., MacLeod JN. Analysis of unannotated equine transcripts identified by mRNA sequencing. PLoS One, 2013 Jul 29;8(7):e70125. PMCID: PMC3726457.
- Hestand MS, Kalbfleisch TS, Coleman SJ, Zeng Z, Orlando L, MacLeod JN. Annotation of the protein-coding regions of the horse genome. *PLoS One*, 2015 Jun 24;10(6):e01243. PMCID: PMC4481266

Computational analyses of transcriptome data – development and assessment of computational and statistical methods to analyze transcriptiome data, including both quantitative and qualitative analyses of differential gene expression.

- Wang K, Singh D, Zeng Z, Coleman SJ, Huang Y, Savich GL, Xiaping H, Mieczkowski P, Grimm SA, Perou CM, MacLeod JN, Chiang DY, Prins JF, Liu J. MapSplice: accurate mapping of RNA-seq reads for splice junction discovery. *Nucleic Acids Research*, 2010 Oct;38(18):e178. PMID: 20802226
- Liu X, MacLeod JN, Liu J. iMapSplice: Alleviating reference bias through personalized RNAseq alignment. PLoS One, 2018 Aug 10;13(8):e0201554. PMCID: PMC6086400.
- Zhang Y, Liu X, MacLeod JN, Liu J. Discerning novel splice junctions from RNA-seq alignment: a machine learning approach. *BMC Genomics*, 2018 Dec 27;19(1):971. PMCID: PMC6307148.
- Hindere EW 3<sup>rd</sup>, Flight RM, Dubey R, MacLeod JN, Moseley HNB. Advances in gene ontology utilization improve statistical power of annotation enrichment. *PLoS One*, 2019 Aug 15;14(8):e0220728. PMCID: PMC6695228

Articular Cartilage Repair – studies on the pathogenesis of osteoarthritis and cellular variables that limit the ability of structural lesions in articular cartilage to heal.

- Menarim BC, Gillis KH, Oliver A, Mason C, Werre SR, Luo X, Byron CR, Kalbfleisch TS, MacLeod JN, Dahlgren LA. Inflamed synovial fluid induces a homeostatic response in bone marrow mononuclear cells in vitro: Implications for joint therapy. FASEB J. 2020 Mar;34(3):4430-4444. PMID: 32030831
- Bagge J, MacLeod JN, Berg LC. Cellular Proliferation of Equine Bone Marrow- and Adipose Tissue Derived Mesenchymal Stem Cells with Increasing Donor Age. Frontiers in Veterinary Science, 2020, 7:602403. doi: 10.3389/fvets.2020.602403. PMID: 33363241
- Mok CH, **MacLeod JN.** Kinetics of Gene Expression Changes in Equine Fetal Interzone and Anlagen Cells Over 14 Days of Induced Chondrogenesis. Front Vet Sci. 2021 Aug 9;8:722324. doi: 10.3389/fvets.2021.722324. eCollection 2021. PMID: 34434986

#### **Complete List of Published Work in MyBibliography:**

https://pubmed.ncbi.nlm.nih.gov/?term=MacLeod+JN&cauthor\_id=8702559

# **Research Support**

**Ongoing Research Support** 

Osteoarthritis Alliance of KY Menarim, Stone, Jacobs, MacLeod (Co-PIs) 3/1/2022 – 2/28/2023 PPAR-y signaling in the recovery of cartilage homeostasis following inflammation Goals: Establish the response of articular chondrocytes to treatment with three PPAR-y agonists, and further assess the articular cartilage response to injection of the optimal PPAR- $\gamma$  in to inflamed joints. Role: Co-PI

Town & Country Farms Menarim (PI) 1/1/2022 - 12/31/2022Goals: Establish the response of synovial macrophages to treatment with three PPAR-y agonists. PPAR-y activation in synovial macrophages for the treatment of joint inflammation Role: Co-I

Lourie Foundation MacLeod (PI) 12/01/2010 - 11/30/2023Cellular Mechanisms of Articular Cartilage, Tendon, and Ligament Repair. Major goals: Cell biology and restricted differentiation potential of tissue-specific progenitor cells, equine sports medicine. Role: PI

Univ. of Kentucky Department of Veterinary Science. MacLeod (PI) 08/01/2019 - 07/31/2022Image Analysis and Biomechanical Modeling of Equine Bones. Major goal: Cell biology and differentiation potential of interzone cells from developing diarthrodial joints. Role: PI

Completed Research Support (last five years)

Morris Animal Foundation MacLeod (PI) 06/01/2016 - 05/30/2020Developmental Progenitor Cells of Articular Cartilage. Major goal: Cell biology and differentiation potential of interzone cells from developing diarthrodial joints. Role: PI.

Kentucky Horse Racing Commission 04/01/2016 - 03/31/2020Janes (PI) Characterizing Compositional and Mechanical Changes of Equine Proximal Sesamoid Bones Associated with Catastrophic Race Failure.

Major goal: Computed tomography image analyses of equine proximal sesamoid bones Role: Co-PI.

1 R01 HG006272-01A1, NIH/NHGRI 12/31/2017

Liu and J. Prins (Co-PI)04/01/2012

Role: Co-L

Unlocking transcript diversity via differential analyses of splice graphs. Major goal: Develop computational methods for differential analysis of mRNA alternative splicing events. Role: Co-I

Morris Animal Foundation Kalbfleisch (PI) 01/01/2015 - 12/31/2017Improving the reference genome of the horse. Major goal: Generate a new version of the reference genome of the horse, correcting errors and omissions in the primary sequence, as well as improving both gene and variant annotation.

## **Extension** Extension Field & Community-Based Research

- UK Ag Equine Programs (2020 present). Description: Overview of the structure, purpose, objectives, and productivity of Equine Programs to stakeholder groups, prospective students, elected officials, and the general public.
- Godolphin Flying Start program. (2013 present). Description: Annual lectures to the Godolphin Flying Start students, plus attend various program student exercises and related functions.
- Stakeholder phone and email consultations. (2004 present). Description: Phone and email consultations with veterinarians, horse professionals, and other stakeholders on topics related to equine musculoskeletal sciences and genetics.

Teaching Prefix Number - Section	Credit Hours	# Enrolled	Code Term Year
EQM 490 - 001	3.00000 - 3.00000	42	10 Fall 2020-2021
VS 791 - 013	1.00000 - 9.00000	2	10 Fall 2020-2021
EQM 490 - 001	3.00000 - 3.00000	25	30 Spring 2019-2020
EQM 490 - 002	3.00000 - 3.00000	11	30 Spring 2019-2020
VS 767 - 004	2.00000 - 2.00000	1	30 Spring 2019-2020
VS 791 - 004	1.00000 - 9.00000	2	30 Spring 2019-2020
EQM 490 - 001	3.00000 - 3.00000	30	10 Fall 2019-2020
VS 767 - 004	2.00000 - 2.00000	2	10 Fall 2019-2020
VS 791 - 013	1.00000 - 9.00000	2	10 Fall 2019-2020
VS 767 - 004	2.00000 - 2.00000	2	30 Spring 2018-2019
VS 767 - 004	2.00000 - 2.00000	2	10 Fall 2018-2019
VS 767 - 004	2.00000 - 2.00000	1	30 Spring 2017-2018
VS 791 - 004	1.00000 - 9.00000	1	30 Spring 2017-2018
VS 767 - 004	2.00000 - 2.00000	1	10 Fall 2017-2018
VS 395 - 001	1.00000 - 4.00000	1	30 Spring 2016-2017
VS 791 - 004	1.00000 - 9.00000	2	30 Spring 2016-2017
VS 395 - 001	1.00000 - 4.00000	1	10 Fall 2016-2017
VS 767 - 004	2.00000 - 2.00000	1	10 Fall 2016-2017

# Teaching

VS 791 - 014	1.00000 - 9.00000	2	10 Fall 2016-2017
VS 767 - 004	2.00000 - 2.00000	2	30 Spring 2015-2016
VS 791 - 004	1.00000 - 9.00000	1	30 Spring 2015-2016

## Dr. Mick L. Peterson Jr

College of Agriculture, Food and Environment Department of Biosystems and Agricultural Engineering

#### Education

PhD, Northwestern University, 1994. Major: Theoretical and Applied Mechanics

MS, Northwestern University, 1987. Major: Theoretical and Applied Mechanics

BSME, General Motors Institute, 1985. Major: Mechanical Engineering

# **Administrative Assignments**

Director of Racetrack Safety Program. January 1, 2020 - Present Responsibilities: Developing a new research and service oriented activity which in support of the Thoroughbred racing industry

Director of Ag Equine Programs. January 1, 2017 - December 31, 2019 Responsibilities: Responsible for multidisciplinary undergraduate, research and service program

# **Research and Scholarship**

#### **Intellectual Contributions**

\* = Senior Author ~ = Corresponding Author + = Grad/Prof Student # = Post Doc ^ = Undergraduate WOS = Web of Science JIF = Journal Impact Factor TC = Journal Total Cites SNIP = Source Normalize Impact per Paper SJR = Scimago Journal Rank

#### Published

#### Journal Article, Academic Journal

- Erbland, P., Caron, S., Peterson, M., Alyokhin, A. (2020). Design and performance of a low-cost, automated, large-scale photobioreactor for microalgae production, *Aquacultural Engineering*, 90, 102103. doi: <u>https://doi.org/10.1016/j.aquaeng.2020.102103</u>
- Jin, Z. H., Janes, J. G., \* Peterson, M. (2020). A Chemo-poroelastic Analysis of Mechanically Induced Fluid and Solute Transport in an Osteonal Cortical Bone, *Annals of Biomedical Engineering*. doi: 10.1007/s10439-020-02544-7

WOS Metric Year: 2019 | Category:Engineering - Biomedical | JIF: 3.324 | Rank by JIF: 30/87 | Rank by TC: 10/87

Author Role:Dr. Jin was involved in development, editing and review of the manuscript including development of chemo-poroelastic analytical models and solutions for fluid and solute transport in osteonal cortical bone.

Dr. Janes was involved in development, editing and review of the manuscript as well as

impact of analytical models on further understanding of equine cortical bone remodeing. Dr. Peterson was involved in development, editing and review of the manuscript including development of chemo-poroelastic analytical models and solutions for fluid and solute transport in osteonal cortical bone.

- Erbland, P., Alyokhin, A., Perkins, L. B., Peterson, M. (2020). Dose-Dependent Retention of Omega-3 Fatty Acids by Black Soldier Fly Larvae (Diptera: Stratiomyidae), *Journal of Economic Entomology*, 113(3), 1221-1226. doi: 10.1093/jee/toaa045
- Hitchens, P. L., Ryan, K., Koch, S. I., Scollay, M. C., Peterson, M. (2019). A sustainable structure for jockey injury data management for the North American horse racing industry, *Injury*, 50(8), 1418 - 1422. doi: https://doi.org/10.1016/j.injury.2019.06.033
- Bridge, J. W., Rubin, H., Dempsey, K. M., Peterson, M. L. (2018). Determining the Water Holding Capacity of Synthetic Track Materials for Thoroughbred Horse Racing, *Materials Performance and Characterization*, 7, 202-216.
- Collett, M. P., Michael, P., Grant, M., Danuse, B. (2018). Higher education: exploring productivity over time, *Journal of Applied Research in Higher Education*, 10(4), 534--546. doi: 10.1108/JARHE-11-2017-0137
- Bridge, J. W., Weisshaupt, K. S., Fisher, R. M., Dempsey, K. M., Peterson, M. (2017). Chemical degradation of a paraffin wax-based binder used in granular composite sport surfaces, *Sports Engineering*, 20(1), 41--51. doi: 10.1007/s12283-016-0216-8
- Hernlund, E., Egenvall, A., Hobbs, S.J., Peterson, M.L., Northrop, A.J., Bergh, A., Martin, J.H., Roepstorff, L. (2017). Comparing subjective and objective evaluation of show jumping competition and warm-up arena surfaces, *The Veterinary Journal*, 227, 49 - 57. doi: <u>https://doi.org/10.1016/j.tvjl.2017.09.001</u>

#### **Review**, Journal

Heleski, C. R., Stowe, C. J., Fiedler, J., Peterson, M., Brady, C., Wickens, C., MacLeod, J. N. (2020).
 Thoroughbred racehorse welfare through the lens of 'social license to operate-with an emphasis on a U.S. perspective, *Sustainability (Switzerland)*, 12(5). doi: 10.3390/su12051706

#### **Non-Sponsored Projects**

#### Industrial/Trade

#### On-going

Peterson, M. (Principal), Janes, J. G. (Co-Principal), Gillette, R. (Collaborator), Woodward, B. (Collaborator), The Effects of Performance Shoeing in Trotting Breeds, United Professional Horseman's Association, (August 2018 - August 2019). Awarded: \$25422.5.
Description: Dr. Peterson will be leading the aspects of the project that are related to mechanics of motion and the coordination of data collection. Dr. Janes will be responsible for making the proper connection between the equine biology and the motion of the hoof during the swing phase.

# Teaching

#### Teaching

Prefix Number - Section	Credit Hours	# Enrolled	Code Term Year
BAE 402 - 001	2.00000 - 2.00000	25	10 Fall 2020-2021
BAE 750 - 012	1.00000 - 3.00000	1	10 Fall 2020-2021
BAE 403 - 001	2.00000 - 2.00000	26	30 Spring 2019-2020
BAE 402 - 001	2.00000 - 2.00000	26	10 Fall 2019-2020
BAE 403 - 001	2.00000 - 2.00000	35	30 Spring 2018-2019
BAE 402 - 001	2.00000 - 2.00000	35	10 Fall 2018-2019
EQM 399 - 010	1.00000 - 6.00000	21	50 Summer 2017-2018
BAE 403 - 001	2.00000 - 2.00000	45	30 Spring 2017-2018
EQM 399 - 001	1.00000 - 6.00000	29	30 Spring 2017-2018
BAE 402 - 001	2.00000 - 2.00000	45	10 Fall 2017-2018

#### **Teacher Course Evaluations**

Prefix Number - Section	Responses	TCE Course Quality Mean	TCE Teaching Quality Mean	Code Term Year
BAE 402 - 001	15	4.00	4.27	10 Fall 2020-2021
BAE 402 - 001	11	3.91	4.36	10 Fall 2019-2020
BAE 402 - 001	14	4.36	4.57	10 Fall 2018-2019
BAE 402 - 001	21	3.90	4.44	10 Fall 2017-2018
BAE 403 - 001	8	4.00	4.25	30 Spring 2019-2020
BAE 403 - 001	17	4.41	4.71	30 Spring 2018-2019
BAE 403 - 001	21	3.71	3.89	30 Spring 2017-2018

Note: With regards to Spring 2020 TCEs please consider the following from page 121 of the UK Playbook for Fall 2020, "It is essential that performance evaluation take into account the extenuating circumstances brought about by the disruption for faculty in all title series and the extraordinary work accomplished by faculty in response to the disruption. Academic leaders shall reiterate that TCEs should be but one indicator of effective teaching in both periodic merit reviews and tenure/promotion decisions. Evaluation of teaching must go beyond student evaluations alone."

#### **Theses and Dissertations**

**Dissertation Committee Chair** 

Peter Schmitt, Biosystems and Agricultural Engineering, "Characterization and Management of Thoroughbred Turf Surfaces," Status: In-Process, Expected Completion Date: July 30, 2022. (July 1, 2018 - Present).

#### **Dissertation Committee Co-Chair**

- Maria Alejandra Blanco, PhD Agricultural Engineering, "Effect of Treatment on the Response of Arena Test Surfaces," Status: In-Process, Degree is in Agronomy Department in University of Buenos Aires, Expected Completion Date: December 31, 2021. (January 1, 2018 Present).
- Patrick Erbland, Interdisciplinary PhD, "Black Soldier Fly Larvae as Aquaculture Feed," Status: Completed, Andrei Alyokhin, Expected Completion Date: January 1, 2019. (June 1, 2015 -December 15, 2020).

#### Master's Thesis Committee Chair

Sarah Caron, MS Mechanical Engineering, "Design of a Micro-Algae Photo Bio Reactor," Status: Completed, Zhihe Jin, Expected Completion Date: January 1, 2018. (June 1, 2016 - June 1, 2018).

## Service

#### Professional Service Executive Director

Racing Surfaces Testing Laboratory, Responsible for the operation of the on-site and laboratory testing of the reference lab for the Thoroughbred racing industry., (June 1, 2009 - Present).

## **Professional Development**

#### **Professional Memberships**

ASTM International. International. (January 1, 2016 - Present).

# Savannah Faye Robin

# **Educational Institutions Attended**

## **Educational Doctorate, May 2022**

University of Kentucky College of Education – Lexington, KY *Educational Leadership* 

### **Education Specialist, May 2022**

University of Kentucky College of Education – Lexington, KY Educational Leadership - Teacher Leader & Principal Certification

### Masters of Science, 2012

University of Kentucky College of Agriculture – Lexington, KY *Community and Leadership Development- Career and Technical Education* Thesis: Cultivating the compass: examining the role of emotional appraisal and professional agency among stakeholders in Kentucky agricultural education.

### **Bachelors of Science, 2009**

University of Kentucky College of Agriculture – Lexington, KY *B.S. Career and Technical Education-Agricultural Education* 

University of Kentucky College of Agriculture- Lexington, KY B.S. Community Communications and Leadership Development- Agricultural Communications

# **Professional Positions**

**University of Kentucky College of Agriculture, Food and Environment; June 2018-Present** *Ag Equine Programs Internship Coordinator GEN 100 Program Coordinator* 

# Harrison County High School; August 2014-June 2018

High School Agriculture Teacher

**National Association of Agricultural Educators; March 2012-August 2014** *Meeting Planner and Advocacy Coordinator* 

University of Kentucky College of Agriculture; June 2010-June 2012 Community and Leadership Development Department *Graduate Research Assistant* 

**Nelson County High School; August 2009-June 2010** *High School Agriculture Teacher* 

**University of Kentucky College of Agriculture; July 2007-July 2009** Equine Initiative *Communications and Editorial Assistant* 

# **Undergraduate Instruction**

#### University of Kentucky College of Agriculture, Food and Environment

Equine Science and Management Internship – EQM 399 Fall 2018; Spring 2019; Summer 2019; Fall 2019; Spring 2020; Summer 2020; Fall 2020; Winter 2020; Spring 2021; Summer 2021; Fall 2021; Spring 2022

Introduction to Careers in the Equine Industry – EQM 106 Fall 2018;Spring 2019; Fall 2019; Spring 2020 Spring 2021; Fall 2021; Spring 2022

Issues in Agriculture, Food, and Environment – GEN 100 Fall 2020; Fall 2021

Scholarship of Teaching and Learning in Equine Science and Management – EQM 300 *Fall 2020; Spring 2021; Fall 2021; Spring 2022* 

ESMA Independent Study Coursework – EQM 395 Fall 2021

A Survey Course of Equine Assisted Therapy and Services – EQM 300 *Summer 2021* 

Advocacy in Education, Communities and Organizations – CLD 495 Spring 2013; Spring 2014; Fall 2016

Teaching Assistant

Methods of Career and Technical Education – AED/FCS 586 *Fall 2010; Fall 2011* 

Introduction to Career and Technical Education – AED/FCS 110 *Fall 2008* 

# **High School Instruction**

#### Harrison County High School

2017- 2018: Greenhouse Management, Plant and Crop Science, Beef and Equine Management, Farm Business Management, Floral Design, Agricultural Employability

2016-2017: Greenhouse Management, Plant and Crop Science, Beef and Equine Management, Ag Education Internship, Floral Design, Agricultural Employability

2015-2016: Animal Science, Veterinary Science, Beef and Equine Management, Farm Business Management, Floral Design

2014-2015: Animal Science, Veterinary Science, Ag Power and Machinery, Small Power and Engines, Agricultural Construction

#### **Nelson County High School**

2009-2010: Animal Science, Agriscience – Introduction to Agriculture; Food Science, Sports Turf Management, Equine Science

# **Professional and Scholastic Involvement and Honors**

Association for Career and Technical Education (ACTE)-2011-2019 Association for Career and Technical Education Research (ACTER) 2011-2012 Association for Leadership Educators (ALE) 2011-2012 **Bourbon County Farm Bureau Board Member 2009-2022** President 2017-2019 Vice President 2010-2017 Secretary 2010-2017 Kentucky Association of Agriculture Teachers (KAAE) 2008-Present National Policy Summit Representative 2011 Advocacy Committee Member 2015-2017 Kentucky Teach Ag Star Program Coordinator 2017-2022 Kentucky Cattlemen's Association -2009-2022 Beef Educator of the Year 2016 Kentucky Beef Council Young Farmer Representative – 2020-2021 NACADA: The Global Community for Academic Advising – 2019- 2020 National Association of Equine Affiliated Academics – 2019-2020 Kentucky Farm Bureau – 2009-Present *Excellence in Agriculture – State Winner and National Competitor 2018* State Political Education Advisory Committee 2018-2019 State Education Advisory Committee 2019-Present *State Vision 100 – strategic planning committee member – 2019-Present* National Association of Agricultural Educators (NAAE)-2008, 2011-2017 National Policy Committee Member 2015-2018 National Teach Ag Star Program Committee Member 2016-2017 University of Kentucky Equine Science and Management Program Curriculum Committee Member – 2018-Present Assessment Committee Member – 2018 – Present Essential Employability Skill Certification Co-Coordinator – 2018-Present University of Kentucky College of Agriculture, Food, and Environment GEN 100 Steering Committee Member – 2020- Present GEN 100 Course and Program Coordinator – 2022- Present

# **Professional Publications and Conference Presentations**

Poster Abstracts

#### **National**

**Robin, S.F.,** Hains, B.J. (2012). Good for the goose, good for the gander: an exploration of difficult concepts for students and teachers in agricultural education. American Association of Agricultural Educators Conference. Raleigh, N.C.

Tubbs, J, A., **Robin, S.F.,** Hains, B.J. (2012). International acculturation: the good bad and ugly. American Association of Agricultural Educators Conference Raleigh, N.C.

**Craddock, S.F.,** Chaplin, M. S., Jackman, W.J. (2011). Creating agricultural advocates through in-class curriculum and experiences. Association for Leadership Educators Conference. Denver, CO.

#### <u>Regional</u>

Tubbs, J.A., **Robin, S.F.**, Hains, B.J. (2012). Rural Education: Acclimating Preservice agriculture teachers to diverse student populations. Southern Association for Rural Sociologists Conference. Birmingham, AL.

**Robin, S.F.,** Tubbs, J.A., Hains, B.J. (2012). Influencing agricultural and educational policies in both rural and urban communities through agricultural education. Southern Association for Rural Sociologists Conference. Birmingham, AL.

Tubbs, J.A., **Robin, S.F.,** Hains, B.J., Logan, K. N. (2012). International acculturation: the good, the bad and the ugly. Southern Association for Agricultural Scientists. Birmingham, AL.

#### <u>Papers</u>

#### <u>National</u>

Hains, B.H., Ricketts, C., Tubbs, J.A., **Robin, S.F.** (2012) Cultural immersion: The development of formal and non-formal leaders in agricultural education. Association for Leadership Educators. Key West, FL.

#### **Research Presentations**

#### **National**

Robin, S.F., & Wilson, K.M, (2021) "They have an equine degree, so what? How can we best prepare equine graduates to excel in the workforce?" National Association of Equine Affiliated Academics Conference, Virtual, [May]

Wilson, K.M., **Robin, S.F**., Urschel, K.L., Rossano, M.G., Heleski, C.R. (2021) "Using Assessment and Curriculum mapping to enhance your undergraduate programming efforts." National Association of Equine Affiliated Academics Conference, Virtual, [May]

Knobloch, N., Keefe, L., Hains, B.J., **Robin, S.F.**, (2012) "Difficult life science concepts in introductory college courses" National Science Teachers Association Conference.[March].

Knobloch, N., Keefe, L., Esters, L., Anderson, M., Hains, B. Robin, S.F. (2011)

"Opportunities and Challenges of Career and Technical Education in preparing the future science,

technology, engineering and mathematics workforce." Association for Career and Technical Education Research Symposium.[November].

**Craddock, S.F.,** Chaplin, M. S., Jackman, W.J. (2011). Creating agricultural advocates through in-class curriculum and experiences. Association for Leadership Educators Conference. Denver, CO.[July]

#### Regional

Tubbs, J.A., Robin, S.F., Hains, B.J. (2012). Rural Education: Acclimating Preservice agriculture teachers to diverse student populations. Southern Association for Rural Sociologists Conference. Birmingham, AL. [January]

**Robin, S.F.,** Tubbs, J.A., Hains, B.J. (2012). Influencing agricultural and educational policies in both rural and urban communities through agricultural education. Southern Association for Rural Sociologists Conference. Birmingham, AL. [January]

Tubbs, J.A., **Robin, S.F.,**Hains, B.J., Logan, K. N. (2012). International acculturation: the good, the bad and the ugly. Southern Association for Agricultural Scientists. Birmingham, AL. [January]

#### State

**Robin, S.F.** (2012). "Marketing your agriculture program locally to impact policy." Kentucky Agriculture Teachers Conference. Louisville, KY [July]

**Craddock, S.F.** (2011)."Agriculture Education Advocacy, Kentucky Council for Agricultural Education."Kentucky Association of Agricultural Education Winter Conference. Lexington, KY. [January]

**Craddock, S.F.** (2011). 'Agriculture Education Advocacy, Kentucky Council for Agricultural Education." Kentucky Association of Agricultural Education Teachers Conference. Louisville, KY. [July]

**Craddock, S.F.** (2010). "Agricultural Education Policy and Legislation." *Kentucky Agriculture Teachers Professional Development*. Elizabethtown, KY. [December].

#### **Professional Presentations**

#### <u>State</u>

Robin, S.F. (2018; 2019; 2020) Teacher Cohort Advocacy and Promotion Training. Kentucky Association of Career and Technical Education. Georgetown, KY [January]

Robin, S.F. (2018;2019; 2020) Get up and do something! High School Student Civic Duty motivation Keynote. Kentucky Association of Career and Technical Education. Frankfort, KY [February]

**Robin, S.F.**, Furnish, A., Whitehead, K., Lemons, W., Mullen, S. (2017) Growing Young Leaders. Kentucky Women in Agriculture State Convention. [November]

Robin, S.F. (2017) Teacher Cohort Advocacy and Promotion Training. Kentucky Association of Career and Technical Education. [January]

Robin, S.F. (2017) Get up and do something! High School Student Civic Duty motivation Keynote. Kentucky Association of Career and Technical Education. Frankfort, KY [February]

Robin, S.F. (2012). 'Advocacy Resources." Kentucky Association of Agricultural Education Teachers Conference. Louisville, KY. [July]

Hains, B., **Robin, S.F.** (2011). 'Ditch the Chalktalk." Kentucky Association of Agricultural Education Teachers Conference. Louisville, KY. [July]

#### <u>National</u>

Robin, S.F. (2017) "Advocate to Educate" National Association of Agricultural Educators Convention, Nashville, TN [November]

Robin, S.F., (2014) "Share your story- make an impact!" ACTE National Policy Seminar. Washington, D.C. [March]

Robin, S.F., (2013) "Developing and sustaining an advisory committee" Mississippi State Career and Technical Educators Conference. Jackson, MS [July]

Robin, S.F., (2013) "Fighting for your CTE Program!" New York State Agriculture

Teachers Conference. Java, NY [June]

Robin, S.F., (2013) "Advocacy in Ag Education!" Virginia Agriculture Teacher & NAAE Region VI Conference. Bristol, VA. [June]

Robin, S.F., (2013) "Advocacy in Ag Education-Telling Your Story!" ACTE National Policy Seminar. Washington, D.C. [March]

Robin, S.F., (2013) "Advocacy in Ag Education!" Indiana Agriculture Teachers Conference. West Layfayette, IN. [June]

Robin, S.F., (2012) "Fighting for your CTE Program!" Association for Career and Technical Education CareerTech Vision. Atlanta, GA. [November]

Robin, S.F., (2012) "Taking action for your state Ag Ed Program!" National Association for Agricultural Educators Convention State Leaders Luncheon Speaker. Atlanta, GA. [November]

Robin, S.F., (2012) "Developing an advocacy plan and taking action!" National Middle School Teachers Association. Portland, OR. [October]

Robin, S.F., (2012) "Developing an advocacy plan and legislation!" New Hampshire FFA Foundation Board. Concord, NH. [September]

Knobloch, N., Keefe, L., Hains, B.J., **Robin, S.F.**,(2012) "Difficult life science concepts in introductory college courses" *National Science Teachers Association Conference*. Indianapolis, IN. [March].

**Robin, S.F.**, Hains, B. (2011) "Building a sustainable future for Agricultural Education: discover how one state is starting this quest by developing their own council for agricultural education.". *National Association for Agricultural Educators National Convention*. St. Louis, MO [November].

**Robin, S.F.**, Chaplin, M. (2011) "Connecting your community to your classroom: using curriculum to develop agricultural advocates." *National Association for Agricultural Educators National Convention.* St. Louis, MO.[November].

Knobloch, N., Keefe, L., Esters, L., Anderson, M., Hains, B. **Craddock, S.** (2011) "Opportunities and Challenges of Career and Technical Education in preparing the future science, technology, engineering and mathematics workforce." Association for Career and Technical Education Research Symposium.[November].

Jackman, J., Chaplin, M. Robin, S.F. (2011) "Making Advocacy Work for You at the Grassroots Level" National Association for Agricultural Educators National Convention.[November].

# **Student Advisement Service**

#### University of Kentucky, Equine Science and Management Career Advising (Present)

• Providing career advising to 300+ students interested in equine related careers

#### University of Kentucky, Equine Science and Management Academic Advising (Present)

• Providing academic advising to on average 20 ESMA freshman annually

### Harrison County High School

• Advised 254- agriculture career pathway students (2015-2018)

#### University of Kentucky, Agricultural Education (2010)

• Advised 27 entering undergraduate agricultural education students

## Dr. Mary G. Rossano

College of Agriculture, Food and Environment Department of Animal and Food Science

#### Education

PHD, Michigan State University, 2003.

Major: Large Animal Clinical Sciences (Epidemiology) Supporting Areas of Emphasis: Veterinary epidemiology and parasitology Dissertation Title: Controlled Interventions using Pyrantel Tartrate to Prevent Sarcocystis neurona Infection in Horses.

MS, Michigan State University, 1999. Major: Animal Sciences, General Supporting Areas of Emphasis: Veterinary epidemiology and parasitology Dissertation Title: Equine protozoal myeloencephalitis (EPM) : seroprevalence and risk factors for Sarcocystis neurona infection in Michigan horses

BS, Michigan State University, 1994. Major: Animal Sciences, General

# **Research and Scholarship**

#### **Intellectual Contributions**

\* = Senior Author ~ = Corresponding Author + = Grad/Prof Student # = Post Doc ^ = Undergraduate WOS = Web of Science JIF = Journal Impact Factor TC = Journal Total Cites SNIP = Source Normalize Impact per Paper SJR = Scimago Journal Rank

#### Published

#### Journal Article, Academic Journal

 + Burk, S. V., Dangoudoubiyam, S., Brewster-Barnes, T., Howe, D. K., Carter, C. N., Bryant, U. K., Rossano, M. G. (2016). Equine antibody response to larval Parascaris equorum excretory-secretory products, *VETERINARY PARASITOLOGY*, 226, 83-87. doi: 10.1016/j.vetpar.2016.06.036
 JIF: 2.329

#### **Sponsored Projects**

#### Closed

Pescatore A., J., Adedokun S., A., Rossano M., G., Service Agreement Antihemelitic Screening, Sponsored by Alltech Incorporated Submitted: October 4, 2017. Funding Dates: October 1, 2017 - August 27, 2020.Requested: \$98,000.00, | Awarded: \$98,000.00
OSPA ID: 201710040807

#### **Not Funded**

Pescatore A., J., Adedokun S., A., Rossano M., G., Controlling Internal Parasites Inorganic Egg Production Hens, Sponsored by National Institute of Food and Agriculture Submitted: January 19, 2017.Requested: \$49,889.00, | Awarded: \$0.00 OSPA ID: 201701191018

Pescatore A., J., Adedokun S., A., Rossano M., G., Controlling Intestinal Parasites In Organic Egg Production Hens, Sponsored by National Institute of Food and Agriculture Submitted: April 13, 2016.Requested: \$462,899.00, | Awarded: \$0.00 OSPA ID: 201604130801

#### **Non-Sponsored Projects**

#### Industrial/Trade

On-going

 Pescatore, A. J. (Principal), Adedokun, S. A. (Co-Investigator), Rossano, M. G. (Co-Investigator), *Development of an in vitro assay for screening anthelmintic activity of plant material extracts against Ascaridia galli in poultry*, Alltech Incorporated, (October 1, 2017 - Present). Awarded: \$98000. Description: Service Agreement Anthelmintic Screening

#### **Presentations Given**

#### Other

Strouss S. W., Barr B. S., Rossano M. G., (December 5, 2017). Assessing the use of a commercially available stall-side serum amyloid A test for diagnosing sepsis in equine neonates. Annual Meeting of the Conference of Research Workers in Animal Diseases, Conference of Research Workers in Animal Diseases, Chicago, IL, United States. Accepted, International.

#### **Podium Session**

Wilson K. M., Robin S. C., Coleman R. J., Urschel K. L., Rossano M. G., Heleski C. R., (May 25, 2021). Using assessment and curriculum mapping to enhance your undergraduate programming efforts 2021 National Association of Equine Affiliated Academics Annual meeting, National Association of Equine Affiliated Academics, Virtual meeting. Accepted, National.

#### **Poster Session**

Strouss S. W., Barr B. S., Rossano M. G., (May 31, 2018). Assessing using serum amyloid A to diagnose disease in equine neonates AFSGA 7th Annual Poster Session, Animal and Food Sciences Graduate Assistants, Lexington, KY, United States. University.

# Teaching

Prefix Number - Section	Credit Hours	# Enrolled	Code Term Year
ASC 205 - 001	1.00000 - 1.00000	42	10 Fall 2020-2021
ASC 320 - 001	3.00000 - 3.00000	23	10 Fall 2020-2021
ASC 320 - 002	3.00000 - 3.00000	24	10 Fall 2020-2021
ASC 320 - 003	3.00000 - 3.00000	26	10 Fall 2020-2021
ASC 320 - 004	3.00000 - 3.00000	25	10 Fall 2020-2021
ASC 205 - 001	1.00000 - 1.00000	46	30 Spring 2019-2020
ASC 395 - 016	1.00000 - 4.00000	1	30 Spring 2019-2020
EQM 105 - 001	2.00000 - 2.00000	9	30 Spring 2019-2020
EQM 105 - 002	2.00000 - 2.00000	8	30 Spring 2019-2020
EQM 105 - 003	2.00000 - 2.00000	9	30 Spring 2019-2020
EQM 105 - 004	2.00000 - 2.00000	8	30 Spring 2019-2020
EQM 105 - 005	2.00000 - 2.00000	9	30 Spring 2019-2020
EQM 105 - 006	2.00000 - 2.00000	9	30 Spring 2019-2020
EQM 105 - 007	2.00000 - 2.00000	8	30 Spring 2019-2020
EQM 105 - 008	2.00000 - 2.00000	9	30 Spring 2019-2020
EQM 105 - 009	2.00000 - 2.00000	9	30 Spring 2019-2020
EQM 105 - 010	2.00000 - 2.00000	8	30 Spring 2019-2020
ASC 205 - 001	1.00000 - 1.00000	44	10 Fall 2019-2020
ASC 320 - 001	3.00000 - 3.00000	26	10 Fall 2019-2020
ASC 320 - 002	3.00000 - 3.00000	21	10 Fall 2019-2020
ASC 320 - 003	3.00000 - 3.00000	21	10 Fall 2019-2020
ASC 320 - 004	3.00000 - 3.00000	24	10 Fall 2019-2020
ASC 205 - 001	1.00000 - 1.00000	42	30 Spring 2018-2019
ASC 395 - 016	1.00000 - 4.00000	2	30 Spring 2018-2019
EQM 105 - 001	2.00000 - 2.00000	9	30 Spring 2018-2019
EQM 105 - 002	2.00000 - 2.00000	9	30 Spring 2018-2019
EQM 105 - 003	2.00000 - 2.00000	8	30 Spring 2018-2019
EQM 105 - 004	2.00000 - 2.00000	9	30 Spring 2018-2019
EQM 105 - 005	2.00000 - 2.00000	9	30 Spring 2018-2019
EQM 105 - 006	2.00000 - 2.00000	9	30 Spring 2018-2019
EQM 105 - 007	2.00000 - 2.00000	9	30 Spring 2018-2019
EQM 105 - 008	2.00000 - 2.00000	9	30 Spring 2018-2019
EQM 105 - 009	2.00000 - 2.00000	7	30 Spring 2018-2019
EQM 105 - 010	2.00000 - 2.00000	7	30 Spring 2018-2019
ASC 205 - 001	1.00000 - 1.00000	44	10 Fall 2018-2019
ASC 320 - 001	3.00000 - 3.00000	28	10 Fall 2018-2019
ASC 320 - 002	3.00000 - 3.00000	31	10 Fall 2018-2019
ASC 320 - 003	3.00000 - 3.00000	30	10 Fall 2018-2019
ASC 320 - 004	3.00000 - 3.00000	24	10 Fall 2018-2019
ASC 395 - 009	1.00000 - 4.00000	1	30 Spring 2017-2018
EQM 105 - 001	2.00000 - 2.00000	9	30 Spring 2017-2018
EQM 105 - 002	2.00000 - 2.00000	9	30 Spring 2017-2018
EQM 105 - 003	2.00000 - 2.00000	9	30 Spring 2017-2018

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EQM 105 - 004	2.00000 - 2.00000	9	30 Spring 2017-2018
EQM 105 - 005	2.00000 - 2.00000	5	30 Spring 2017-2018
EQM 105 - 006	2.00000 - 2.00000	9	30 Spring 2017-2018
EQM 105 - 007	2.00000 - 2.00000	8	30 Spring 2017-2018
EQM 105 - 008	2.00000 - 2.00000	9	30 Spring 2017-2018
EQM 105 - 009	2.00000 - 2.00000	8	30 Spring 2017-2018
EQM 105 - 010	2.00000 - 2.00000	7	30 Spring 2017-2018
ASC 320 - 001	3.00000 - 3.00000	30	10 Fall 2017-2018
ASC 320 - 002	3.00000 - 3.00000	32	10 Fall 2017-2018
ASC 320 - 003	3.00000 - 3.00000	33	10 Fall 2017-2018
ASC 320 - 004	3.00000 - 3.00000	32	10 Fall 2017-2018
EQM 105 - 001	2.00000 - 2.00000	8	30 Spring 2016-2017
EQM 105 - 002	2.00000 - 2.00000	9	30 Spring 2016-2017
EQM 105 - 003	2.00000 - 2.00000	9	30 Spring 2016-2017
EQM 105 - 004	2.00000 - 2.00000	10	30 Spring 2016-2017
EQM 105 - 005	2.00000 - 2.00000	6	30 Spring 2016-2017
EQM 105 - 006	2.00000 - 2.00000	9	30 Spring 2016-2017
EQM 105 - 007	2.00000 - 2.00000	9	30 Spring 2016-2017
EQM 105 - 008	2.00000 - 2.00000	9	30 Spring 2016-2017
EQM 105 - 009	2.00000 - 2.00000	7	30 Spring 2016-2017
EQM 105 - 010	2.00000 - 2.00000	3	30 Spring 2016-2017
ASC 101 - 001	3.00000 - 3.00000	34	10 Fall 2016-2017
ASC 101 - 002	3.00000 - 3.00000	36	10 Fall 2016-2017
ASC 101 - 003	3.00000 - 3.00000	33	10 Fall 2016-2017
ASC 101 - 004	3.00000 - 3.00000	30	10 Fall 2016-2017
ASC 101 - 005	3.00000 - 3.00000	35	10 Fall 2016-2017
ASC 101 - 006	3.00000 - 3.00000	29	10 Fall 2016-2017
ASC 320 - 001	3.00000 - 3.00000	33	10 Fall 2016-2017
ASC 320 - 002	3.00000 - 3.00000	34	10 Fall 2016-2017
ASC 333 - 002	1.00000 - 4.00000	14	10 Fall 2016-2017
EXP 396 - 008	1.00000 - 12.00000	1	10 Fall 2016-2017
EQM 105 - 001	2.00000 - 2.00000	9	30 Spring 2015-2016
EQM 105 - 002	2.00000 - 2.00000	7	30 Spring 2015-2016
EQM 105 - 003	2.00000 - 2.00000	9	30 Spring 2015-2016
EQM 105 - 004	2.00000 - 2.00000	9	30 Spring 2015-2016
EQM 105 - 005	2.00000 - 2.00000	7	30 Spring 2015-2016
EQM 105 - 006	2.00000 - 2.00000	9	30 Spring 2015-2016
EQM 105 - 007	2.00000 - 2.00000	9	30 Spring 2015-2016
EQM 105 - 008	2.00000 - 2.00000	9	30 Spring 2015-2016
EQM 105 - 009	2.00000 - 2.00000	8	30 Spring 2015-2016
EQM 105 - 010	2.00000 - 2.00000	5	30 Spring 2015-2016
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**Teacher Course Evaluations** 

Prefix Number - Section	Responses	TCE Course Quality Mean	TCE Teaching Quality Mean	Code Term Year
ASC 101 - 001	19	3.63	4.05	10 Fall 2016-2017
ASC 101 - 002	17	4.18	4.18	10 Fall 2016-2017
ASC 101 - 003	13	4.00	4.31	10 Fall 2016-2017
ASC 101 - 004	14	3.79	3.79	10 Fall 2016-2017
ASC 101 - 005	13	4.54	4.62	10 Fall 2016-2017
ASC 101 - 006	8	4.25	4.38	10 Fall 2016-2017
ASC 205 - 001	11	3.73	4.18	10 Fall 2020-2021
ASC 205 - 001	13	3.15	3.62	30 Spring 2019-2020
ASC 205 - 001	18	4.06	4.33	10 Fall 2019-2020
ASC 205 - 001	19	4.37	4.58	30 Spring 2018-2019
ASC 205 - 001	19	3.74	4.00	10 Fall 2018-2019
ASC 320 - 001	5	4.20	4.00	10 Fall 2020-2021
ASC 320 - 001	11	4.27	4.36	10 Fall 2019-2020
ASC 320 - 001	16	4.38	4.38	10 Fall 2018-2019
ASC 320 - 001	11	3.36	3.73	10 Fall 2017-2018
ASC 320 - 001	12	4.00	4.08	10 Fall 2016-2017
ASC 320 - 002	9	4.56	4.56	10 Fall 2020-2021
ASC 320 - 002	8	4.50	4.50	10 Fall 2019-2020
ASC 320 - 002	10	4.40	4.30	10 Fall 2018-2019
ASC 320 - 002	15	3.93	4.13	10 Fall 2017-2018
ASC 320 - 002	15	4.20	4.47	10 Fall 2016-2017
ASC 320 - 003	11	4.18	4.36	10 Fall 2020-2021
ASC 320 - 003	7	4.43	4.71	10 Fall 2019-2020
ASC 320 - 003	14	4.29	4.43	10 Fall 2018-2019
ASC 320 - 003	15	3.80	3.93	10 Fall 2017-2018
ASC 320 - 004	10	4.20	3.90	10 Fall 2019-2020
ASC 320 - 004	11	4.45	4.55	10 Fall 2018-2019
ASC 320 - 004	19	3.63	4.16	10 Fall 2017-2018
EQM 105 - 001	6	3.67	3.67	30 Spring 2015-2016
EQM 105 - 002	5	5.00	5.00	30 Spring 2017-2018
EQM 105 - 003	6	4.33	4.33	30 Spring 2017-2018
EQM 105 - 004	5	4.00	3.60	30 Spring 2016-2017
EQM 105 - 004	6	3.17	3.50	30 Spring 2015-2016
EQM 105 - 006	5	4.40	4.20	30 Spring 2017-2018
EQM 105 - 006	5	3.40	4.00	30 Spring 2015-2016

Note: With regards to Spring 2020 TCEs please consider the following from page 121 of the UK Playbook for Fall 2020, "It is essential that performance evaluation take into account the extenuating circumstances brought about by the disruption for faculty in all title series and the extraordinary work accomplished by faculty in response to the disruption. Academic leaders shall reiterate that TCEs should be but one indicator of effective teaching in both periodic merit reviews and tenure/promotion decisions. Evaluation of teaching must go beyond student evaluations alone."

#### **Theses and Dissertations**

#### **Dissertation Committee Member**

Izabela De Assis Rocha, Veterinary Parasitology, "To be determined.," Status: In-Process, The first meeting of Izabela's committee was in October, 2020., Daniel Howe (Chair)
Ernest Bailey
Theodore Kalbfleisch
Stephen Reed
Mary Rossano. (October 27, 2020 - Present).

 Jennifer Cain, Equine Parasitology, "To be decided later.," Status: In-Process, Jennifer is just starting her PhD program., Martin Nielson
 Daniel Howe
 John Cox. (June 2018 - Present).

John Brunnquell, Animal Science, "Optimizing Animal Welfare in Commercial Laying Hens Through Novel Management Practices and Farm Manager Evaluation.," Status: Completed, Anthony Pescatore Robert Coleman Morgan Hayes Joshua Jackson Michael Toscano. (April 2017 - May 9, 2020).

Ashley Steuer, Veterinary Sciences, "Host-Parasite Interaction in Horses - Mucosal Responses to Naturally Acquired Cyathostomin Infections and Anthelmintic Treatment.

," Status: Degree Awarded, Martin Nielsen Amanda Adams Alan Loynachan. (December 2016 - April 14, 2020).

#### **Master's Thesis Committee Chair**

- Samantha Strouss, Animal Science, "Assessment of the serum amyloid a assay for diagnosing disease in neonatal foals," Status: Completed, Ms. Strouss will graduate in Fall 2018,, Dr. Fernanda Camargo
- Dr. Amanda Adams. (August 2016 September 17, 2018).

#### **Master's Thesis Committee Member**

Carissa Truman, Animal Science, "Automated body condition scoring: progression across lactation and its association with disease and reproduction in dairy cows.," Status: Completed, Joao Costa Solomon Harrar , Expected Completion Date: November 27, 2018. (October 2017 - November 5, 2018).

#### **Outside examiner**

Ashton Miller, Veterinary Sciences, "Effects of Pituitary Pars Intermedia Dysfunction and Prascend<sup>®</sup> treatment on endocrine and immune function in senior horses," Status: Completed. (July 11, 2019).

Melissa Siard, Status: Completed, Amanda Adams David Horohov Elizabeth Head Kristine Urschel Thomas Chambers. (May 2017).

#### Directed Student Learning (excluding theses, dissertations)

Izabela De Assis Rocha. Teaching Supervision. . Completed (August 10, 2020 - December 8, 2020).

Description: Supervised and mentored Izabela De Assis Rocha as a graduate teaching assistant in ASC 320.

Emily Elkin. Instructor for Honor's College course conversion project. *Pasture Management in Equine Facilities*. Completed (August 2020 - October 2020).
 Description: Supervised Emily Elkin's conversion of Equine Management (ASC 320) to an Honors College course.

- Izabela De Assis Rocha. Teaching Supervision. . Completed (January 20, 2020 May 8, 2020). Description: Supervised and mentored Izabela De Assis Rocha as a graduate teaching assistant in EQM 105.
- Supervised and mentored undergraduate class assistants. . Completed (February 1, 2020 March 13, 2020).

Description: Directed and mentored 6 undergraduate class assistants involved with EQM 105 (Equine Behavior and Handling). Colleen McClure, Elizabeth Humphrey, Shawn Easterbrook, Rachel Reed, Maria Oachs, Makayla James.

Supervised and mentored undergraduate class assistants. . Completed (February 2019 - May 2019).

Description: Directed and mentored 11 undergraduate class assistants involved with EQM 105 (Equine Behavior and Handling). Lizzie Morelan, Rachel Phelps, Madisen Baldwin, Julie Dettman, Colleen McClure, Channing McWilliams, Abigail Adams, Shawn Easterbrook, MaryGrace Hartzog, Riley Zimmerman and Lauren Olsen.

Rachel Kiczuk. Directed Individual/Independent Study. . Completed (January 9, 2019 - May 1, 2019).

Description: Rachel Kiczuk was supervised in an independent study of horse handling skills along with students in EQM 105 (Equine Behavior and Handling).

April Hayes. Directed Individual/Independent Study. . Completed (January 7, 2019 - May 1, 2019).

Description: Supervised and mentored April Hayes for an academic enrichment experience centered on a study of ascarids in chickens.

Ashlyn Justice. Instructor for Honor's College course conversion project. *Best environmental management practices of a breeding and boarding facility*.. Completed (September 10, 2018 - December 1, 2018).

Description: Four students in the Honor's College have converted Equine Management (ASC 320) into an Honor's course by undertaking independent study projects that go in-depth in course material. Each student has an individually assigned topic area.

Dagan Montgomery. Instructor for Honor's College course conversion project. *Pasture* management of a breeding and boarding facility. Completed (September 10, 2018 -December 1, 2018).

Description: Four students in the Honor's College have converted Equine Management (ASC 320) into an Honor's course by undertaking independent study projects that go in-depth in course material. Each student has an individually assigned topic area.

Jenna Bryant. Instructor for Honor's College course conversion project. *Designing a parasite control program for a breeding and boarding facility*.. Completed (September 10, 2018 - December 1, 2018).

Description: Four students in the Honor's College have converted Equine Management (ASC 320) into an Honor's course by undertaking independent study projects that go in-depth in course material. Each student has an individually assigned topic area.

Kaitlyn Teague. Instructor for Honor's College course conversion project. *Designing a vaccination program for a breeding and boarding facility*. Completed (September 10, 2018 - December 1, 2018).

Description: Four students in the Honor's College have converted Equine Management (ASC 320) into an Honor's course by undertaking independent study projects that go in-depth in course material. Each student has an individually assigned topic area.

- Melanie Gelertner. Instructor for Honor's College course conversion project. Equine nutrition for a breeding and boarding facility. Completed (September 10, 2018 December 1, 2018).
   Description: Four students in the Honor's College have converted Equine Management (ASC 320) into an Honor's course by undertaking independent study projects that go in-depth in course material. Each student has an individually assigned topic area.
- Dustin Mallory. Academic enrichment supervisor. *CAFE Peer instructor*. Completed (February 1, 2018 May 4, 2018).

Description: Dustin completed his academic enrichment experience by assisting with teaching my Equine Behavior and Handling (EQM 105) class.

Elizabeth Humphrey. Academic enrichment supervisor. . Completed (February 1, 2018 - May 4, 2018).

Description: Elizabeth completed her academic enrichment experience by assisting with teaching my Equine Behavior and Handling (EQM 105) class.

- Abigail Fielder. Directed Individual/Independent Study. *Reasons for Neonatal Foals' Admission to Intensive Care Unit at an Equine Hospital*. Completed (February 1, 2018 May 4, 2018).
   Description: Abigail Fielder analyzed clinical records at Rood and Riddle Equine Hospital and summarized the factors associated with foals being admitted to the Intensive Care Unit of the hospital.
- Supervisor of undergraduate teaching assistants. . Completed (February 1, 2018 May 4, 2018).
   Description: Directed and mentored 6 undergraduate teaching assistants involved with EQM 105 (Equine Behavior and Handling). (Other assistants that year were doing an internship or academic enrichment experience.)

Nathan Cole. Internship Advisor. *Teaching assistant, EQM 105*. Completed (February 1, 2018 - April 27, 2018).

Description: Supervised a teaching internship for an undergraduate student assisting with my course, Equine Behavior and Handling (EQM 105).

Supervisor of undergraduate teaching assistants. . Completed (February 1, 2017 - May 7, 2017). Description: Directed and mentored 12 undergraduate teaching assistants involved with EQM 105 (Equine Behavior and Handling).

McKenzie Ames. Academic enrichment supervisor. . Completed (February 1, 2017 - May 1, 2017).

Description: McKenzie completed her academic enrichment experience by assisting with teaching my Equine Behavior and Handling (EQM 105) class.

#### **Academic Advising**

Fall 2020-2021, 47 undergraduate students advised.

Spring 2019-2020, 41 undergraduate students advised.

Fall 2019-2020, 49 undergraduate students advised.

Spring 2018-2019, 48 undergraduate students advised.

- Fall 2018-2019, 58 undergraduate students advised, Advising undergraduate students in the Equine Science and Management degree program.
- Spring 2017-2018, 56 undergraduate students advised, Advising undergraduate students in the Equine Science and Management degree program.
- Fall 2017-2018, 56 undergraduate students advised, Advising undergraduate students in the Equine Science and Management degree program.
- Spring 2016-2017, 51 undergraduate students advised, Advising undergraduate students in the Equine Science and Management degree program.
- Fall 2016-2017, 49 undergraduate students advised, Advising undergraduate students in the Equine Science and Management degree program.

#### **Program and Curriculum Development**

#### 2018

Program/Curriculum Name - Animal Science Description: Converting ASC 205 (Career Development in the Animal Sciences) to an online format.

#### **Other Credit and Non-Credit Instructional Activities**

#### Faculty advisor to student club

Participants: Undergraduate Students, 25,

Description: Faculty advisor to the UK Saddle Seat Team. The team competes in saddle seat equitation competitions in the Intercollegiate Saddle Seat Riders Association. The team averaged between 20-30 active members over the 2016-2017, 2017-2018 and fall 2018 time periods.

#### **Guest Lecture**

Poultry Production, Participants: Undergraduate Students, 48, (February 3, 2017)

Description: Taught 2 avian anatomy laboratories with Jackie Wahrmund. These were wet lab dissections of chickens.

#### Workshop

Equine Parasitology, Participants: Professional Student, 7, (May 2, 2018) Description: I taught a workshop on equine parasitology and fecal egg counting to visiting students from the MESB program. This occurred on the UK campus.

Program Assessment for All: Setting Goals and Assessing Learning Outcomes, (June 1, 2017) Description: Co-presented a workshop on academic assessment with faculty from other institutions. (Dr. Karen Waite, Dr. Lynn Taylor and Dr. Karin Bump.)

#### Service

#### **Department Service**

#### **Committee Chair**

Committee to establish Covid-19 safely protocols for reopening in fall, 2020., (June 10, 2020 - July 20, 2020).

#### **Committee Member**

Animal and Food Science Reunion Planning Committee, (2019 - Present).

AFS Social Committee, (2007 - 2019).

Committee to design Teaching Pavilion expansion, (April 12, 2017 - July 20, 2018).

ESMA Curriculum Committee, (January 2010 - August 2017).

#### Manage the IRB approval and compliance for the department's academic assessment.

Serve as principal investigator responsible to the IRB for the study, "Assessing student learning outcomes and identifying factors leading to academic success in the Department of Animal and Food Sciences", (2010 - January 2019).

#### **College Service**

#### **Committee Member**

Member of the Equine Science and Management (ESMA) Assessment Committee., (July 10, 2019 - Present).

## **Professional Service**

**Reviewer, Journal Article** 

Journal of Equine Veterinary Science, Manuscript reviewer., (January 2017 - July 2018).

Equine Veterinary Journal, Manuscript reviewed., (May 16, 2018).

#### **Public Service**

- Jessamine County 4-H Colonels Horse Club, Fecal egg count lab with Jessamine County 4-H Colonels Horse Club. This included instruction with microscopes and was held in a teaching laboratory on campus., (January 25, 2020).
- Jessamine County 4-H Colonels Horse Club, Gave instruction on equine parasitology to 4-Hers interested in competing in state horse bowl and skillanthon. Used lecture and specimens., (January 18, 2020).
- KY 4-H Equine Program, I presented a lesson on parasitology for 4-Hers during the annual Teen Conference., (June 12, 2019).
- KY 4-H Horse Program State Contest, Served as a judge in the communications division., (June 7, 2019).

#### Judge

- KY State 4-H Horse Competition, Judged the communications division for 4-Hers from across the state., (June 2018).
- KY State 4-H Horse Competition, Judged the communications division for 4-Hers from across the state., (June 2017).

# **Professional Development**

#### **Professional Memberships**

Equine Science Society. International. (January 2009 - Present).

American Association of Veterinary Parasitologists. International. (January 1998 - Present).

#### **Development Activities Attended**

#### **Conference Attendance**

Attended the annual meeting of the Conference of Research Workers in Animal Diseases. (November 30, 2017 - December 5, 2017). The Conference of Research Workers in Animal Diseases. International. Chicago, IL, United States.

The Conference of Research Workers in Animal Diseases meeting covered topics related to veterinary epidemiology and animal health.

Attended the Equine Science Society Symposium. (May 30, 2017 - June 1, 2017). Equine Science Society. International. Minneapolis, MN, United States.

A research symposium cover topics in equine nutrition, physiology and management, as well as teaching and extension.

#### Seminar

What We Learned. (December 2, 2020). CELT. University.

The seminar was a faculty-led discussion on what did and did not work well for us in the fall semester. Experiences with online and hybrid instruction were emphasized. My class, ASC 320, was used as an example.

Week of Teaching Virtual Symposium. (July 27, 2020 - July 31, 2020). CELT. University. Equity, inclusion, and belonging as a pedagogical urgency, to encourage each other to engage in pedagogical practices that support all students, and to develop confidence in addressing issues of inclusion, equity, and belonging as part of planned curricula as well as when they arise unexpectedly in both in-person and virtual learning environments.

#### Workshop

- Fostering Community & Belonging CAFE Fall Workshops. (November 16, 2020). CAFE. College. Attendees gained insights and develop practical tools for establishing a welcoming classroom environment for all students.
- College of Agriculture, Food and Environment Instructional Design Series. (July 13, 2020 July 17, 2020). CAFE. College.

The seminar series provided instruction on course design and delivery using the CAFE Canvas template.

#### Training

Hazardous Waste Training. (November 5, 2020). CAFE. College.

This was a Virtual Hazardous Waste Training with the recent changes in regulations and updates.

## Dr. Ray Smith Jr

College of Agriculture, Food and Environment Department of Plant and Soil Sciences



#### Summary

Dr. Ray Smith is a native of Georgia and received his undergraduate degree from Asbury University in Kentucky in 1983. After teaching high school biology for two years he entered a graduate degree program in Agronomy and Plant Breeding at the University of Georgia with Dr. Joe Bouton. From 1991-2001, Ray held a research, teaching and extension position at the University of Manitoba, Canada with a focus on alfalfa and native grass breeding, seed production and forage management. He was the Forage Extension Specialist at Virginia Tech from 2001-2004 and is now Professor and Extension Specialist at the University of Kentucky. Ray is the past chair of the Continuing Committee for the International Grassland Congress and past President of the American Forage and Grassland Council. He has published 59 articles in refereed journals, presented 175 papers at professional conferences, written over 140 extension publications, and given over 700 extension presentations. Ray has been the advisor for 17 master's students, 5 PhD's, 5 Postdocs, and 27 senior research students. His current extension activities include working closely with county agents and producers; conducting applied forage research for Kentucky and the transition zone; helping organize state, regional, national, and international forage conferences; and writing applied agricultural publications. His current research projects include: evaluating forage varieties for grazing tolerance and yield, developing forage production systems for equine, beef and dairy, and developing and comparing pasture evaluation methods.

#### Education

- PHD, University of Georgia, 1991. Major: Agronomy and Crop Science
- MS, University of Georgia, 1987. Major: Agronomy and Crop Science
- BS, Asbury College, 1983. Major: Biology/Biological Sciences, General

# **Research and Scholarship**

#### **Intellectual Contributions**

\* = Senior Author ~ = Corresponding Author + = Grad/Prof Student # = Post Doc ^ = Undergraduate

 WOS = Web of ScienceJIF = Journal Impact Factor
 TC = Journal Total Cites

 SNIP = Source Normalize Impact per Paper
 SJR = Scimago Journal Rank

#### Published

#### Journal Article, Academic Journal

- \*Buckley, B.R., C.M. Lituma, P.D. Keyser, E. Holcomb, S.R. Smith, J. Morgan, and R. Applegate. 2022. Effects of Grazing on Grassland Bird Nesting on Native Grassland Pastures of the Mid-South USA. Rangeland Ecology & Management (accepted)
- \*Lea, K.L.M, and S.R. Smith. 2021. Using on-farm monitoring of ergovaline and tall fescue composition for horse pasture management. Toxins 2021, 13, 683. https://doi.org/10.3390/toxins13100683.
- \*Lea, K.L.M, and S.R. Smith. 2021. Using on-farm monitoring of ergovaline and tall fescue composition for horse pasture management. Toxins 2021, 13, 683. <u>https://doi.org/10.3390/toxins13100683</u>.
- \*+Payne, K., S.R. Smith, and B.M. Goff. 2021. Enhanced Efficiency Nitrogen for Bermudagrass White Clover Pastures. Crop Science 2021;61:4458-4470. DOI:10.1002/csc2.20615.
- \*Lituma, C.M. B.R. Buckley, P.D. Keyser, E. Holcomb, S.R. Smith, J. Morgan, and R. Applegate. 2021. Effects of patch-burn grazing and rotational grazing on grassland bird abundance, species richness, and diversity in native grassland pastures of the Midsouth USA. Agriculture, Ecosystems, and Environment. 324: 107710. <u>https://doi.org/10.1016/j.agee.2021.107710</u>
- \*Payne, K., S.R. Smith, and B.M. Goff. 2021. Enhanced efficiency nitrogen formulation on stockpiled tall fescue production. Agronomy J. 2021:1 11. <u>https://doi.org/10.1002/agj2.20553</u>
- \* + Mercier, K. M., Teutsch, C., Smith, S. R., Ritchey, E. L., VanZant, E. S., Burdine, K. H. (2021). Nitrogen Effects on DM Yield and Botanical Components of Summer Annual Forage Mixtures Madison Wisconson, *Agronomy Journal*.
- \* + Allison, J., Burdine, K. H., Dillon, C. R., Smith, S. R., Butler, D. M., Bates, G., Pighetti, G. (2021). Optimal forage and supplement balance for organic dairy farms in the Southeastern United States, *Agricultural Systems*.
- Tao, B., Yang, Y., Yang, J., Smith, S. R., Fox, J. F., Ruane, A. C., Liu, J., Ren, W. (2020). Recent shrinkage and fragmentation of bluegrass landscape in Kentucky, *Remote Sensing*, 12(11), 1815. doi: doi.org/10.3390/rs12111815
- Roberts, C. A., Andrae, J. G., Smith, S. R., Poore, M. H., Young, C. A., Hancock, D. W., Pent, G. J. (2020). The alliance for grassland renewal: a model for teaching endophyte technology, *Journal of Animal and Veterinary Sciences*, 14(5), 50-54.
- \* + Friesen, G. M., Smith, S. R., Cattani, D. J., Phan, A. T. (2020). Characterizing genetically diverse blue grama [*Bouteloua gracilis* (Willd. ex Kunth) Lag. ex Griffiths] seed sources, *Canadian Journal of Botany*, 98(11). doi: doi.org/10.1139/cjb-2020-0029

- Kramer, K. J., Kagan, I. A., Lawrence, L. M., Goff, B. M., Smith, S. R. (2020). Water-Soluble Carbohydrates of Cool-Season Grasses: Prediction of Concentrations by Near-Infrared Reflectance Spectroscopy and Evaluation of Effects of Genetics, Management, and Environment, *Journal of Equine Veterinary Science*, 90. doi: 10.1016/j.jevs.2020.103014
- Cherney, J. H., Smith, S. R., Sheaffer, C. C., Cherney, D. J.R. (2020). Nutritive value and yield of reduced-lignin alfalfa cultivars in monoculture and in binary mixtures with perennial grass madison WI, *Agronomy Journal*, 112(1), 352-367. doi: doi: 10.2134/agronj2019.05.0348
- Kagan, I. A., Anderson, M. L., Kramer, K. J., Seman, D. H., Lawrence, L. M., Smith, S. R. (2020).
   Seasonal and Diurnal Variation in Water-Soluble Carbohydrate Concentrations of Repeatedly
   Defoliated Red and White Clovers in Central Kentucky, *Journal of Equine Veterinary Science*, 84. doi: 10.1016/j.jevs.2019.102858
- Smith, S. R., \* Leanne Dillard, S., Ray Smith, S., Hancock, D. W. (2019). Variability of ergovaline and total ergot alkaloid expression among endophytic tall fescue cultivars madison WI, *Crop Science*, 59(6), 2866-2875. doi: doi.org/10.2135/cropsci2018.12.0730
- Kagan, I. A., Goodman, J. P., Seman, D. H., Lawrence, L. M., Smith, S. R. (2019). Effects of Harvest Date, Sampling Time, and Cultivar on Total Phenolic Concentrations, Water-Soluble Carbohydrate Concentrations, and Phenolic Profiles of Selected Cool-Season Grasses in Central Kentucky, *Journal of Equine Veterinary Science*, 79, 86-93. doi: 10.1016/j.jevs.2019.05.005
- \* McDowell, K., + Taylor, V., Phillips, T., Lea, K., Smith, S. R., Aiken, G., Barrett, M. (2019). Pregnant mares grazing a novel endophyte infected tall fescue foal normally, *Journal of Equine Veterinary Science*, 74, 56-64. doi: doi.org/10.1016/j.jevs.2018.12.006
- \* Robins, J. G., Smith, S. R., Hall, M. H., Teutsch, C. D., Undersander, D. J. (2018). Associations among U.S. locations for orchardgrass production, *Crop Forage Turfgrass Management*, 3.
- \* + Sena, K. L., Goff, B., + Davis, D., Smith, S. R. (2018). Switchgrass growth and forage quality trends provide insight for management, *Crop Forage Turfgrass Management*, 3. doi: 10.2134/cftm2017.02.0012
- + Davis, D., Aiken, G., Llewellyn, D. A., \* Lea, K., Smith, S. R. (2018). Case Study: Intake and apparent digestibility of Alamo and Cave-in-Rock switchgrass cultivars harvested as hay at 3 different maturities by beef calves, *Professional Animal Scientist*.
- Kagan, I. A., \* Lawrence, L. M., Seman, D. H., Prince, K. J., Fowler, A. L., Smith, S. R. (2018).
   Effects of sampling time, cultivar, and methodology on water- and ethanol-soluble carbohydrate profiles of three cool-season grasses in central Kentucky, *Equine Veterinary Science*, 61, 99-107. doi: doi.org/10.1016/j.jevs.2017.11.0

#### Accepted

#### Book, Chapter in Scholarly Book-New

- \* Smith, S. R., Lea, K. (2018). Pasture Plant Establishment and Management, *Horse Pasture Management*. Academic Press.
- \* Lea, K., Smith, S. R. (2018). University of Kentucky horse pasture evaluation program, Horse

Pasture Management. Academic Press.

### **Sponsored Projects**

### Awarded

 Smith S., R., Henning J., C., Stowe C., J., Ecological and Economic Benefits of Resource Conservation on Horse Farms, Sponsored by Natural Resources Conservation Service Submitted: July 30, 2019. Funding Dates: June 1, 2020 - February 27, 2023. | Awarded: \$361,674.00

OSPA ID: 201907300848

- Bullock K., D., Anderson L., H., Arnold L., M., Burdine K., H., Hayes M., D., Jackson J., J., Lehmkuhler J., W., Smith S., R., Teutsch C., VanValin K., R., Integrated CAIP for Beef Cattle Production, Sponsored by KY Governor's Office of Agricultural Policy Submitted: March 25, 2020. Funding Dates: July 17, 2020 - July 17, 2022. | Awarded: \$256,602.00 OSPA ID: 202003251118
- Smith S., R., RCPP 1277- Overgrazing and Soil Degradation on Horse Farms, Sponsored by Natural Resources Conservation Service Submitted: July 10, 2015. Funding Dates: September 27, 2016 - September 30, 2021. | Awarded: \$129,750.00
   OSPA ID: 201507100615
- Houtz R., L., Aaron D., K., Anderson L., H., Barrett M., Bridges P., J., Ely D., G., Harmon D., L., Holder M., Hunt A., G., Ji H., Matthews J., C., McCulley R., L., McDowell K., J., McLeod K., R., Phillips T., D., Schardl C., L., Schendel R., R., Smith S., R., Teutsch C., Vanzant E., S., Improving Sustainability of Forage-Based Production Systems, Sponsored by Agricultural Research Service Submitted: July 12, 2018. Funding Dates: May 1, 2018 - April 30, 2021. | Awarded: \$2,428,023.00

OSPA ID: 201807121511

- Halich G., S., Lehmkuhler J., W., Smith S., R., Bale Grazing: On-Farm Evaluation in the Upper South, Sponsored by University of Georgia Submitted: November 21, 2018. Funding Dates: March 15, 2019 - March 14, 2021. | Awarded: \$12,252.00
  OSPA ID: 201811210906
- Smith S., R., Re-Writing of Alfalfa for Beef Cows, Sponsored by National Alfalfa and Forage Alliance Submitted: December 11, 2019. Funding Dates: April 1, 2020 - February 28, 2021. | Awarded: \$9,464.00

OSPA ID: 201912111215

Lehmkuhler J., W., Henning J., C., Smith S., R., Teutsch C., NC SSARE Temporary Electrical Fencing

System Training, Sponsored by North Carolina State University Submitted: November 5, 2018. Funding Dates: April 1, 2019 - February 28, 2021. | Awarded: \$13,484.00 OSPA ID: 201811051329

- Smith S., R., Bewley J., M., Burdine K., H., Develop Science-based Recommendations to Efficiently Manage Forages, Herd Health and Productivity on Organic Dairies in the Southeastern US, Sponsored by University of Tennessee Submitted: April 27, 2015. Funding Dates: September 1, 2015 - February 28, 2021. | Awarded: \$476,804.00 OSPA ID: 201504271443
- Bennett A., R., Aaron D., K., Anderson L., H., Barrett M., Bridges P., J., Ely D., G., Harmon D., L., Holder M., Hunt A., G., Ji H., Matthews J., C., McCulley R., L., McDowell K., J., McLeod K., R., Phillips T., D., Schardl C., L., Schendel R., R., Smith S., R., Teutsch C., Vanzant E., S., Improving Sustainability of Forage-based Production Systems, Sponsored by Agricultural Research Service Submitted: July 12, 2018. Funding Dates: May 1, 2018 - April 30, 2020. | Awarded: \$1,942,094.00

OSPA ID: 201807121511

#### Closed

Smith S., R., Publication Update: Grazing Alfalfa, Sponsored by National Alfalfa and Forage Alliance Submitted: June 14, 2019. Funding Dates: September 1, 2019 - December 31, 2020.
Awarded: \$4,714.00 OSPA ID: 201906141528

Halich G., S., Lehmkuhler J., W., Smith S., R.,

Ecological,Livestock,Production,Cattle,Beef,Pasture,Grazing,Environment, Sponsored by University of Georgia Submitted: November 21, 2016. Funding Dates: April 1, 2017 -September 30, 2019. | Awarded: \$79,064.00 OSPA ID: 201611210806

- Keene T., C., Medina S., Smith S., R., Taulbee D., N., Sawdust Briquetting to Facilitate Integration and Power Production in a Coal-Fired Utility Boiler, Sponsored by KY Energy and Environment Cabinet Submitted: May 31, 2018. Funding Dates: August 1, 2018 - June 30, 2019. | Awarded: \$86,562.00 OSPA ID: 201805311503
- Lehmkuhler J., W., Amaral-Phillips D., M., Anderson L., H., Bullock K., D., Burris W., R., Smith S., R., Teutsch C., Kentucky Beef Network Master Account, Sponsored by Kentucky Beef Network Submitted: March 15, 2017. Funding Dates: March 21, 2017 - December 31, 2018.
  Awarded: \$506,874.00 OSPA ID: 201703151053
- Smith S., R., Management Tools to Improve Forage Quality and Persistence of Alfalfa, Sponsored by Cornell University Submitted: May 26, 2015. Funding Dates: September 1, 2015 August 31, 2017. | Awarded: \$54,000.00
  OSPA ID: 201505261648
- Lehmkuhler J., W., Amaral-Phillips D., M., Anderson L., H., Bullock K., D., Burdine K., H., Burris W., R., Halich G., S., Smith S., R., Kentucky Beef Network VIII Master Education Series, Sponsored by Kentucky Beef Network Submitted: March 2, 2015. Funding Dates: January 1, 2015 December 31, 2016. | Awarded: \$427,460.00
  OSPA ID: 201503020856
- Nokes S., E., Crofcheck C., DeBolt S., Halich G., S., Knutson B., Lee C., D., Lynn B., Montross M., D., Mueller T., G., Rankin S., E., Seay J., R., Smith S., R., Stombaugh T., S., On-Farm Biomass Processing: Towards an Integrated High Solids Transporting/Storing/Processing System,

Sponsored by National Institute of Food and Agriculture Submitted: September 11, 2012. Funding Dates: July 1, 2012 - June 30, 2016. | Awarded: \$6,131,217.00 OSPA ID: 201209111321

#### Not Funded

Ren W., Kusunose Y., Smith S., R., Stowe C., J., Vincent S., K., CNH2-S: Coupled Socio-economic and Ecological Dynamics in a Pasture-Livestock System under Climate and Land Use Changes, Sponsored by National Science Foundation Submitted: November 12, 2019. | Awarded: \$0.00

OSPA ID: 201911120913

Smith S., R., Development and Implementation of Sustainable and Resilient Grassland Agroecosystems, Sponsored by University of Tennessee Submitted: July 10, 2017. | Awarded: \$0.00

OSPA ID: 201707101104

- McCulley R., L., Smith S., R., How Will Climate Change Impact Alfalfa Yield, Forage Quality, Phenolic Concentrations, and N-Fixation?, Sponsored by National Institute of Food and Agriculture Submitted: April 16, 2019. | Awarded: \$0.00 OSPA ID: 201904161353
- Smith S., R., Implementing Rotational Grazing Systems on KY Horse Farms, Sponsored by Natural Resources Conservation Service Submitted: November 26, 2019. | Awarded: \$0.00 OSPA ID: 201911261218
- Smith S., R., Burris W., R., Teutsch C., Improved Drouhght Resiliency and Production Efficiency for Grasslands Agriculture, Sponsored by University of Tennessee Submitted: February 22, 2017. | Awarded: \$0.00
   OSPA ID: 201702221258
- Teutsch C., Burdine K., H., Henning J., C., Smith S., R., Improving the Fescue-Belt Forage System for Greater, More Profitable, and Sustainable Cow-Calf Production, Sponsored by University of Tennessee Submitted: September 30, 2018. | Awarded: \$0.00 OSPA ID: 201809301700
- Poffenbarger H., J., Dillon C., R., Ren W., Salmeron Cortasa M., Sama M., Shepard C., Smith S., R., Wendroth O., O.B., Integrating Ecological and Technical Innovations for Improved Nitrogen Management in Topographically-heterogeneous Corn Belt FEW Systems, Sponsored by National Science Foundation Submitted: September 30, 2018. | Awarded: \$0.00 OSPA ID: 201809301660
- Smith S., R., Keene T., C., Kenaf A Synergistic Multi-Purpose Annual Crop for Coal Producing Regions of the United States, Sponsored by University of Louisville Submitted: July 30, 2018.
   Awarded: \$0.00

OSPA ID: 201807301607

Goff B., M., Smith S., R., Williams D., W., Kenaf: A multi-functional annual crop to promote bioeconomy and soil reclamation in coal producing regions of the United States, Sponsored by University of Louisville Submitted: September 20, 2016.Requested: \$749,999.00, | Awarded: \$0.00

OSPA ID: 201609201511

 Goff B., M., Smith S., R., Williams D., W., Kenaf: A Multi-Functional Annual Crop to Promote Bioeconomy and Soil Reclamation in Coal Producing Regions of the United States., Sponsored by University of Louisville Submitted: June 27, 2017.Requested: \$233,208.00, | Awarded: \$0.00
 OSPA ID: 201706270754  Smith S., R., Teutsch C., Soil Health Management Systems - An Innovative, Diversified Grazing System for the Fescue Belt, Sponsored by University of Tennessee Submitted: February 3, 2018. | Awarded: \$0.00
 OSPA ID: 201802030925

#### Pending

- Halich G., S., Lehmkuhler J., W., Smith S., R., Bale Grazing: A Practical, Low-Cost, and Environmentally-Sound Management Strategy, Sponsored by Natural Resources Conservation Service Submitted: June 1, 2020. | Awarded: \$0.00
  OSPA ID: 202006011141
- Harmon D., L., Lehmkuhler J., W., McLeod K., R., Smith S., R., Use of Forage-Fodder Beet Grazing Systems to Improve Sustainability of Cattle Production: Full grant proposal, Sponsored by University of Georgia Submitted: December 10, 2020. | Awarded: \$0.00
   OSPA ID: 202012101424

# Scope Grants

### Awarded

Smith S., R., ARS/FAPRU: Changes Over Time in Botanical Composition, Endophyte and Ergovaline on KY Cattle Farms, Sponsored by Agricultural Research Service Submitted: July 11, 2019. Funding Dates: May 1, 2018 - April 30, 2021.Requested: \$186,380.00, | Current Budget Amount: \$88,600.00
Description: Received \$186,380 in funding over a 4 year period Prime Grant OSPA ID: 201807121511

#### Closed

 Medina S., Smith S., R., Keene T., C., Sawdust Briquetting to Facilitate Integration and Power Production in a Coal-Fired Utility Boiler, Sponsored by KY Energy and Environment Cabinet Submitted: September 18, 2018. Funding Dates: August 1, 2018 - June 30, 2019. | Current Budget Amount: \$43,282.00

Prime Grant OSPA ID: 201805311503

Teutsch C., Amaral-Phillips D., M., Bullock K., D., Lehmkuhler J., W., Anderson L., H., Burris W., R., Smith S., R., Kentucky Beef Network Applied Master Cattleman, Sponsored by Kentucky Beef Network Submitted: April 11, 2017. Funding Dates: March 21, 2017 - December 31, 2018. | Current Budget Amount: \$36,250.00

Prime Grant OSPA ID: 201703151053

 Teutsch C., Amaral-Phillips D., M., Bullock K., D., Lehmkuhler J., W., Anderson L., H., Burris W., R., Smith S., R., Kentucky Beef Network Master Cattleman, Sponsored by Kentucky Beef Network Submitted: April 11, 2017. Funding Dates: March 21, 2017 - December 31, 2018. | Current Budget Amount: \$38,000.00

Prime Grant OSPA ID: 201703151053

 Smith S., R., ARS/SCA: Developing Sampling, Analysis, and Management Methodology for Cool Season Forages, Sponsored by Agricultural Research Service Submitted: February 4, 2016.
 Funding Dates: August 1, 2014 - April 30, 2018. | Current Budget Amount: \$198,952.00

Prime Grant OSPA ID: 201602041500

 Smith S., R., ARS/SCA: Developing Sampling, Analysis, and Management Methodology for Cool Season Forages, Sponsored by Agricultural Research Service Submitted: January 10, 2014.
 Funding Dates: July 1, 2013 - April 30, 2018. | Current Budget Amount: \$120,594.00

Prime Grant OSPA ID: 201305081534

#### **Non-Sponsored Projects**

#### Federal

#### **Under Review**

Teutsch, C. (Principal), Smith, S. R. (Co-Investigator), Henning, J. (Co-Investigator), Improving the Fescue-Belt Forage System for Greater, More Profitable, and Sustainable Cow Calf Systems, USDA AFRI. Awarded: \$9960000.

Description: This is a seven state project being led by the University of TN. Approximately \$800,000 will be coming to KY if funded.

This study will evaluate the impact of multiple warm- and cool-season grass mixtures on forage and animal production, cattle rumen efficiency, animal and plant pest pressure, soil health, profitability, and consumers' attitudes and preferences of sustainably produced beef. Information from this study will be extended to stakeholders across the Mid-South region through on-farm demonstrations, field days, and meetings, as well as through publications, videos, websites and social media.

#### Industrial/Trade

#### **On-going**

Henning, J. C., Teutsch, C., Smith, S. R., Development of Forage and Grazing Component of Small Ruminant Master Class, Kentucky Sheep and Goat Development Office, (January 1, 2020 -December 31, 2021). Awarded: \$11000.

Description: The UK Forage Specialists are developing the forage and grazing component of the Small Ruminant Master Class. Since most of this will be taught online we are developing training modules on a range of topics and writing and updating publications that will be appropriate resources.

Smith, S. R., Teutsch, C., Henning, J. C., Forage Variety Testing for Kentucky and the Transition Zone, U.S. and International Seed Companies, (January 2019 - December 2020). Awarded: \$55000.

Description: Various seed companies fund this program annually and the results are reported to farmers and county agents across the state and used by others throughout the region.

Teutsch, C. (Co-Investigator), Henning, J. C. (Co-Investigator), Smith, S. R. (Co-Investigator), Kentucky Grazing Calendar, Gallagher Animal Management US, (January 1, 2019 - December 31, 2020). Awarded: \$40000.
Descriptions in kind functions have supplying 4000 proving calendary.

Description: In kind funding by supplying 4000 grazing calendars

### **Presentations Given**

- Couture V. L., Krawczel P. D., Smith S. R., Schneider L. G., Ríus A. G., Pighetti G. M., (2018). Factors affecting lying behavior of grazing dairy cows in organic systems 52nd Congress International Society Applied Ethology, charlottesville PEI, Canada. Accepted, International.
- Couture T. L., Krawczel P. D., Smith R., Schneider L. G., Ríus A. G., Pighetti G. M., (2018). Effect of Management System on the Lying Behavior of Organic Dairy Cows American Dairy Science Association Annual Meeting, KY, United States. Accepted.
- Bailey H. R., Butler D. M., Bates G. M., Pighetti G. M., Krawczel P. D., Smith S. R., Mercier K., McIntosh D. W., Rius A. G., (2018). M16: Effects of pasture quality on feed efficiency and milk production of organic dairy cows in the Southeast USA American Dairy Science Association Annual Meeting, United States. Accepted.
- Pighetti G. M., Couture V., Bailey H., Rius A., Krawczel P. D., Smith S. R., (2018). Microorganisms isolated from subclinical intramammary infections present in cattle managed on organic dairy farms in the southeast US. American Dairy Science Association Annual Meeting, United States. Accepted.
- Smith S. R., (February 22, 2018). Fine tuning varietal selection for the Mid-South Kentucky Alfalfa and Stored Forage Conference, Cave City, KY, United States.
- Riley A. C., Prince K., Smith S. R., Teutsch C., Lawrence L., (January 2018). Forage quality and carbohydrate content of cool season perennial grasses American Forage and Grassland Association Annual Conference, Louisville, KY, United States. Accepted.
- Mercier K. M., Teutsch C. D., Smith S. R., Ritchey E. L., Burdine K. H., Vanzant E. S., (January 2018). Grazing Stockers on Diverse Mixtures of Summer Annual Forages American Forage and Grassland Association Annual Conference, Louisville, KY, United States. Accepted.
- Bailey H. R., Butler D. M., Bates G. M., Pighetti G. M., Krawczel P. D., Smith S. R., Mercier K., McIntosh D. W., Rius A. G., (January 2018). Nutritive analysis of four spring forage mixtures for organic dairy

production in the Southeastern United States American Forage and Grassland Association Annual Conference, Louisville, KY, United States. Accepted.

- Neese S., Smith S. R., (November 2017). Evaluation of Forage Mixtures on Production and Profitability of Organic Dairy Systems Kentucky Academy of Science Annual Meeting, KY, United States. Accepted.
- Smith S. R., Lea K., (October 2017). Using Summer Interns to Advance Forage Research and Extension American Society of Agronomy, Tampa, FL, United States. Accepted.
- Tucker J., Lea K., Smith S. R., Smith R., Goff B., Morrison J., Newman Y., (June 2017). The AFGC National Forage Bowl Competition: A national forage-related competition that leads to career opportunities for undergraduate agriculture students Southern Forage and Pasture Crop Improvement Conference, knoxville, TN, United States. Accepted.
- Fowler A. L., Teutsch C., Smith S. R., Goff B., Prince K., Lawrence L. M., (January 2017). ASSESSING MINERAL CONCENTRATIONS OF COOL-SEASON GRASSES ACROSS SEASONS American Forage and Grassland Association Annual Conference, Roanoke, VA, United States. Accepted.
- Smith S. R., . Lea K., Keene T., Olson G., Roberts G., (January 2017). Forage Quality on the Move: Long-term Storage of Switchgrass Affects Forage Quality American Forage and Grassland Association Annual Conference, Roanoke, VA, United States. Accepted.
- Smith S. R., (January 2017). Pasture Condition Scoring Workshop American Forage and Grassland Association Annual Conference, Roanoke, VA, United States. Accepted.
- Lea K., Smith S. R., Keene T., (January 2017). Twelve Years of Horse Pasture Evaluation American Forage and Grassland Association Annual Conference, Roanoke, VA, United States.
- Smith S. R., Lea K., Taylor S., (January 2017). Forage Mixtures Ideal for Organic Dairy Production in Kentucky and Tennessee American Forage and Grassland Council, Roanoke, VA, United States. Accepted.
- Smith S. R., (January 2017). How to Maximize Energy Content in Forage Grasses Forages at KCA, KY Cattlemans Association, lexington, KY, United States.

### **Poster Session**

Teutsch C., Villanueva R. T., Gonzalez Y., Olson G. L., Smith S. R., (January 16, 2018). TOLERANCE OF FORAGE SORGHUM CULTIVARS TO SUGARCANE APHID American Forage and Grassland Council Annual Meeting, American Forage and Grassland Council, Louisville, KY, United States. Accepted, National.

# Extension

### **Extension Publications & Media**

\* = Senior Author ~ = Corresponding Author + = Grad/Prof Student # = Post Doc ^ = Undergraduate

#### Published

#### Peer-Reviewed

#### **Extension Publication- Numbered, Original Content**

- Smith, S. R. (2018). AGR-236- Managing Frost Damaged Damaged Alfalfa Stands Lexington, KY, University of Kentucky Agricultural Communications Service, 3.
- Smith, S. R. (2018). AGR-229- Warm Season Annual Annual Grasses in Kentucky Lexington, KY, University of Kentucky Agricultural Communications Service, 3.
- Smith, S. R. (2018). AGR-235- Baleage Frequently Asked Asked Questions Lexington, KY, University of Kentucky Agricultural Communications Service, 4.
- Smith, S. R. (2018). AGR-230- Forage Sorghum Lexington, KY, University of Kentucky Agricultural Communications Service, 2.
- Smith, S. R. (2018). AGR-231- Pearl Millet Lexington, KY, University of Kentucky Agricultural Communications Service, 2.
- Smith, S. R. (2018). AGR-232- Crabgrass Lexington, KY, University of Kentucky Agricultural Communications Service, 2.
- Smith, S. R. (2018). AGR-233- Foxtail Millet Lexington, KY, University of Kentucky Agricultural Communications Service, 2.
- Smith, S. R. (2018). AGR-234- Sudangrass and Sorghum Hybrids Lexington, KY, University of Kentucky Agricultural Communications Service, 2.
- \* Smith, S. R. (2017). ID-247- Pastured Poultry Lexington, KY, University of Kentucky Agricultural Communications Service, 7.

#### **Extension Publication- Numbered, Revised Content**

- \* Knott, C. A., Lee, C. D., Haramoto, E. R., Henning, J. C., Smith, S. R. (2020). AGR-18 Grain, Forage, and Cover Crop Guide Lexington, KY, *University of Kentucky Agricultural Communications Service*, 12.
- \* Knott, C. A., Lee, C. D., Haramoto, E. R., Henning, J. C., Smith, S. R. (2020). AGR-18P Grain, Forage, and Cover Crop Guide (poster) Lexington, KY, *University of Kentucky Agricultural Communications Service*, 1.
- Anderson, L. H., Bullock, K. D., Lehmkuhler, J. W., Burdine, K. H., Smith, S. R., Rentfrow, G. K., Arnold, M. (2019). IRM Beef Calendar 2019.

Anderson, L. H., Bullock, K. D., Lehmkuhler, J. W., Burdine, K. H., Burris, W. R., Rentfrow, G. K., Smith, S. R., Arnold, M. (2017). Beef Integrated Resource Management Calendar.

#### Non Peer-Reviewed

#### **Extension Publication- Non-numbered, Original Content**

Teutsch, C., Lea, K., Coleman, R. J., Smith, S. R. (2018). Improving Kentucky horse pastures.

#### **Extension Publication- Numbered, Original Content**

- Olson, G. L., Smith, S. R., Teutsch, C., Henning, J. C., Phillips, T. D., Lawrence, L. M. (2020). PR-790 2020 Cool-Season Grass Horse Grazing Tolerance Report Lexington, KY, *University of Kentucky Agricultural Experiment Station*(PR-790).
- Olson, G. L., Smith, S. R., Teutsch, C., Henning, J. C., Bruening, W. P. (2020). PR-791 2020 Annual Grass Report Warm Season and Cool Season (Cereals) Lexington, KY, *University of Kentucky Agricultural Experiment Station*(PR-791).
- Olson, G. L., Smith, S. R., Henning, J. C., Teutsch, C. (2020). PR-792 2020 Long-Term Summary of Kentucky Forage Variety Trials Lexington, KY, *University of Kentucky Agricultural Experiment Station*(PR-792).
- Olson, G. L., Smith, S. R., Phillips, T. D., Teutsch, C., Henning, J. C. (2020). PR-783 2020 Orchardgrass Report Lexington, KY, *University of Kentucky Agricultural Experiment Station*(PR-783).
- Olson, g. L., Smith, S. R., Teutsch, C., Phillips, T. D., Henning, J. C. (2020). PR-784 2020 Tall Fescue and Bromegrass Report, *University of Kentucky Agricultural Experiment Station*(PR-784).
- Olson, G. L., Smith, S. R., Phillips, T. D., Teutsch, C., Henning, J. C. (2020). PR-785: 2020 Timothy and Kentucky Bluegrass Report Lexington, KY, *University of Kentucky Agricultural Experiment Station*(PR-785).
- Olson, G. L., Smith, S. R., Phillips, T. D., Teutsch, C., Henning, J. C. (2020). PR-786 2020 Annual and Perennial Ryegrass and Festulolium Report Lexington, KY, *University of Kentucky Agricultural Experiment Station*(PR-786).
- Olson, G. L., Smith, S. R., Teutsch, C., Henning, J. C. (2020). PR-787 2020 Alfalfa Grazing Tolerance Report Lexington, KY, *University of Kentucky Agricultural Experiment Station*(PR-787).
- Olson, G. L., Smith, S. R., Teutsch, C., Henning, J. C. (2020). PR-788 2020 Red and White Clover Grazing Tolerance Report Lexington, KY, *University of Kentucky Agricultural Experiment Station*(PR-788).

- Olson, G. L., Smith, S. R., Teutsch, C., Henning, J. C., Phillips, T. D. (2020). PR-789 2020 Cool-Season Grass Grazing Tolerance Report Lexington, KY, *University of Kentucky Agricultural Experiment Station*(PR-789).
- Olson, G. L., Smith, S. R., Teutsch, C., Henning, J. C. (2020). PR-781- 2020 Alfalfa Report Princeton, University of Kentucky Agricultural Communications Service.
- Olson, G. L., Smith, S. R., Teutsch, C., Henning, J. C. (2020). PR-782- 2020 Red and White Clover Report Princeton, *University of Kentucky Agricultural Communications Service*.
- Olson, G. L., Smith, S. R., Phillips, T. D., Teutsch, C., Henning, J. C. (2020). PR-767- 2019 Timothy and Kentucky Bluegrass Report, *University of Kentucky Agricultural Communications Service*.
- Teutsch, C., Henning, J. C., Smith, S. R. (2019). PR-774- 2019 Long-Term Summary of Kentucky Forage Variety Trials, *University of Kentucky Agricultural Communications Service*.
- Olson, G. L., Teutsch, C., Henning, J. C., Smith, S. R. (2019). PR-773- 2019 Annual Grass Report: Warm Season and Cool Season (Cereals) Princeton, *University of Kentucky Agricultural Communications Service*.
- Teutsch, C., Henning, J. C., Smith, S. R., Phillips, T. D. (2019). PR-771- 2019 Cool-Season Grass Grazing Tolerance Report, *University of Kentucky Agricultural Communications Service*.
- Teutsch, C., Henning, J. C., Lawrence, L. M., Smith, S. R., Phillips, T. D. (2019). PR-772- 2019 Cool-Season Grass Horse Grazing Tolerance Report, *University of Kentucky Agricultural Communications Service*.
- Gene, O. L., Smith, S. R., Phillips, T. D., Teutsch, C., Henning, J. C. (2019). PR-769- 2019 Alfalfa Grazing Tolerance Report, *University of Kentucky Agricultural Communications Service*.
- Olson, G. L., Smith, S. R., Teutsch, C., Henning, J. C. (2019). PR-770- 2019 Red and White Clover Grazing Tolerance Report, *University of Kentucky Agricultural Communications Service*.
- Gene, O. L., Smith, S. R., Phillips, T. D., Teutsch, C., Henning, J. C. (2019). PR-765- 2019 Orchardgrass Report Princeton, *University of Kentucky Agricultural Communications Service*.
- Gene, O. L., Smith, S. R., Phillips, T. D., Teutsch, C., Henning, J. C. (2019). PR-768- 2019 Annual and Perennial Ryegrass and Festulolium Report, *University of Kentucky Agricultural Communications Service*.
- Olson, G. L., Smith, S. R., Teutsch, C., Henning, J. C. (2019). PR-763- 2019 Alfalfa Report, University of Kentucky Agricultural Communications Service.
- Olson, G. L., Smith, S. R., Teutsch, C., Henning, J. C. (2019). PR-764- 2019 Red and White Clover Report, *University of Kentucky Agricultural Communications Service*.

- Olson, G. L., Smith, S. R., Phillips, T. D., Teutsch, C., Henning, J. C. (2019). PR-766- 2019 Tall Fescue and Bromegrass Report, *University of Kentucky Agricultural Communications Service*.
- Olson, G. L., Smith, S. R., Teutsch, C. D., Clark, J. D. (2018). 2017 Alfalfa Grazing Report PR-733, Univ. of KY PR Report.
- Olson, G. L., Smith, S. R., Teutsch, C., Bruening, B. (2018). 2017 Annual Grass Report: Warm Season and Cool Season (Cereals) PR-737.
- Olson, G. L., Smith, S. R., Teutsch, C. (2018). 2017 Long-Term Summary of Kentucky Forage Variety Trials PR-738, *Univ. of KY PR Report*.
- Olson, G. L., Smith, S. R., Teutsch, C., Phillips, T. D. (2018). 2017 Tall Fescue and Bromegrass Report PR-730, Univ. of KY PR Report.
- Olson, G. L., Smith, S. R. (2017). 2017 Alfalfa Report PR-727, Univ. of KY PR Report.
- Olson, G. L., Smith, S. R., Phillips, T. D., Teutsch, C. (2017). 2017 Annual and Perennial Ryegrass and Festulolium Report, *Univ. of KY PR Report*.
- Olson, G. L., Smith, S. R., Teutsch, C. D., Phillips, T. D., Lawrence, L. M. (2017). 2017 Cool-Season Grass Horse Grazing Tolerance Report, *Univ. of KY PR Report*.
- Olson, G. L., Smith, S. R., Teutsch, C., Phillips, T. D. (2017). 2017 Orchardgrass Report PR-729, Univ. of KY PR Report.
- Olson, G., Smith, S. R., Teutsch, C., Clark, J. (2017). 2017 Red and White Clover Grazing Report PR-733, Univ. of KY PR Report.
- Olson, G. L., Smith, S. R., Teutsch, C. (2017). 2017 Red and White Clover Report PR-728, Univ of KY PR Report.
- Olson, G. L., Smith, S. R., Phillips, T. D., Teutsch, C. (2017). 2017 Timothy and Kentucky Bluegrass Report PR-731, *Univ. of KY PR Report*.

#### Videotape

lea, k., Smith, S. R. (2020). Prominent Kentucky Horse Farm Successfully Establishes Pastures during a Drought Lexington, KY, *University of Kentucky Agricultural Communication*.

Author Role:Krista took the lead as the main spokesperson on the video. I helping the on-farm consultation that led to the development of this video

Roberts, J. G., Smith, S. R. (2020). Impact of Management on Spring Growth of Alfalfa Following Winter Dormancy, UK Forages YouTube Channel - https://www.youtube.com/c/KYForages.

- Roberts, J. G., Smith, S. R. (2020). Impact of Seed Depth on Lacefield Novel Endophyte Tall Fescue, *KY Forages YouTube Channel http://www.youtube.com/c/KYForages*.
- Roberts, J. G., Smith, S. R. (2020). Impact of Seeding Depth on Alfalfa Emergence, *KY Forages YouTube Channel - http://www.youtube.com/c/KYForages*.
- Roberts, J. G., Smith, S. R. (2020). Impact of Winter Management on Spring Production of Pastures, *KY Forages YouTube Channel http://www.youtube.com/c/KYForages*.
- Roberts, J. G., Smith, S. R., Schwer, I. (2020). Response of Orchardgrass and Tall fescue to Rotational Grazing, *KY Forages YouTube Channel https://www.youtube.com/c/KYForages.*
- Roberts, J. G., Smith, S. R. (2020). Response of Orchardgrass to Weekly and Monthly Defoliation, *KY Forages YouTube Channel* - <u>http://www.youtube.com/c/KYForages</u>.
- Roberts, J. G., Smith, S. R. (2020). Response of Various Species in the Seedling Stage to Shading, KY Forages YouTube Channel - http://www.youtube.com/c/KYForages.
- Roberts, J. G., Smith, S. R., Schwer, I. (2020). Impact of Continuous and Rotational Stocking on Orchardgrass Regrowth, UK Forage YouTube Channel https://www.youtube.com/c/KYForages.
- Roberts, J. G., Smith, S. R. (2020). Seedling Vigor of Various Forage Species, UK Forage YouTube Channel - <u>https://www.youtube.com/c/KYForages</u>.

#### Accepted

#### Peer-Reviewed

#### **Extension Publication- Numbered, Original Content**

 \* Henning, J. C., Teutsch, C., Smith, S. R., Phillips, T. D. Date Accepted: (June, 2020). Growing wheat for forage. Author Role: Jimmy Henning - Senior author, responsible for completing the draft submitted for review, complying with reviewers comments and submitting the final draft. Teutsch - Contributed to the structure and format of the publication Smith - Contributed content
 Phillips - Contributed content and helped with forage botanical description.

#### Non Peer-Reviewed

#### **Extension Publication- Numbered, Revised Content**

\* Henning, J. C., Teutsch, C., Smith, S. R. Date Accepted: (August, 2020). Baling forage crops for silage.

Author Role:Henning - Main author and corresponding author Teutsch - Contributor Smith - Contributor

Teutsch, C., Smith, S. R., Henning, J. C., Lacefield, G. D., Keene, T. Date Accepted: (2017). Forages for beef cattle, *Chapter in the The Kentucky Beef Book*.

#### **Extension Presentations Summary**

#### **County Presentations**

February 24, 2019 - October 7, 2020.

Description: This is a composite entry of all single county level presentations, meetings, and field days. | Presentations: 18 | Participants: 882.

#### **Multi-County Presentations**

January 1, 2019 - December 31, 2020.

Description: Presentation at Master Haymaker on Cool and Warm Season forages for hay production | Presentations: 4 | Participants: 190.

January 1, 2019 - December 31, 2020.

Description: Master Cattleman Forage Presentation | Presentations: 4 | Participants: 170.

March 10, 2019 - March 12, 2020.

Description: Gave presentations at the Farm and Family winter program in Maysville KY at the community college in 2019 and 2020 - Warm Season Forages, Renovating Stands, Pasture Improvement | Presentations: 3 | Participants: 95.

January 28, 2019 - January 27, 2020.

Description: Regional Equine Pasture's Please program that is one of two main Equine Extension Events in the Bluegrass Region each year. Jan 28 2019 Georgetown and Jan 27 2020 Lexington | Presentations: 2 | Participants: 310.

January 17, 2020.

Description: Gave presentation on renovating forage stands at the Forages at KCA meeting in Owenboro | Presentations: 1 | Participants: 150.

December 5, 2019.

Description: Assisted Jimmy Henning in presenting on How to Make Baleage at the KY Farm Bureau annual meeting | Presentations: 1 | Participants: 125.

September 26, 2019.

Description: Presentation on annual forages at Beef Bash in Versailles KY at the Woodford County farm | Presentations: 1 | Participants: 260.

April 23, 2019 - September 24, 2019.

Description: I presented at 4 Grazing Schools during this period, including Producer schools at Princeton and Versailles, Berry Center/Sterling College school in Henry County and at a NRCS School at the UK Maine Chance farm in Lexington. I gave 3 presentations at each program | Presentations: 12 | Participants: 120.

#### August 6, 2019.

Description: Statewide annual Forage Field Day in association with the KY Forage and Grassland Council. Aug 6, 2019 Western KY | Presentations: 1 | Participants: 125.

#### May 30, 2019 - August 5, 2019.

Description: Presented and helped organize the annual Equine Farm and Facility Expo (May 30) with local county agents and the Western KY Equine Field Day (Sept 5, 2019)

| Presentations: 2 | Participants: 230.

#### March 20, 2019.

Description: Presentation on Tall Fescue Management with Novel Endophytes in conjunction with the Alliance for Grassland Renewal in Princeton KY | Presentations: 1 | Participants: 50.

#### February 9, 2019.

Description: Presentation on what to do after spraying herbicides in forage fields | Presentations: 1 | Participants: 135.

### **Extension Education & Training Programs**

### **County Agent In-Service Training**

 Accepted speaker. Pasture and Hay Field Recovery. (October 22, 2019). Scope: Multi-county. Counties: 60. Participants: 80 County agents/ specialists.
 Description: I gave this presentation at the Eastern KY Agent Inservice Training

#### Seminar

 Accepted speaker. How Forage Plants Grow. (May 5, 2019). Scope: State. Participants: 135 General public.
 Description: I was the keynote speaker at the Michigan Forage and Grassland Council annual meeting

#### Workshop

*Facilitator*. KY Grazing Schools. (January 2019 - December 2020). Scope: State. Counties: 20. Participants: 100 General public.

Description: The 2 day Kentucky Grazing Schools provide livestock producers the opportunity to learn the latest grazing system and animal production techniques in a hands-on interactive environment.

We held grazing schools in the spring of 2019 and 2020 in Princeton, KY and in fall of 2019 in Versailles, KY. The fall 2020 grazing school was cancelled due to Covid. We plan year round for these workshops.

 Accepted speaker. Forage Management for Large Animal Vets. (August 8, 2019). Scope: Multi-county. Counties: 25. Participants: 55 Industry professionals.
 Description: I presented 3 presentations and facilitated this professional training to large animal vets from around the state of Kentucky

### **Extension Related Consulting**

Business and Industry, KY County Agents, KY, United States. (January 1, 2019 - December 31, 2020).

Description: Approximately 900 phone calls and texts, 900 emails based on 3 calls/texts/day 150 days per year x 2 year and similar number of emails

Business and Industry, KY Forage Producers, United States. (January 1, 2019 - December 31, 2020).

Description: Although I always encourage producers to first be in contact with their county agents I received approximately 500 phone calls or texts and 500 emails directly from producers. Not including the numerous short consultations with producers at every county, multi-county or state meeting.

Business and Industry, KY Horse Farms, United States. (January 2019 - December 2020).
 Description: We continue to offer detailed Pasture Evaluations for KY Horse Farm. Although Krista Lea and my summer crew conduct most of the "on-farm" work, I meet with the majority of the farms (managers and/or owners) for a final consultation and presentation of their results. These consultations involve 1000's of acres of farm land each year.
 2019 - 19 farms and 2020- 25 farms

 Business and Industry, On-farm consultations with Forage and Cattle Producers in Kentucky, KY, United States. (January 2019 - October 2020).
 Description: I have conducted approximately 42 one to three hour on-farm consultation visits accompanied by KY county agents during the last two years

Type of Media	Dates	Faculty Member's Role	Description	Evidence of Reach
UK Equine Science Review	May 2020 - December 2020	Associate/Assist ant Editor	This publication replaced the Bluegrass Equine Digest and an important International Equine Magazine - I serve on the editorial board.	Approximately 5000
KY Forage Website	January 1,	Associate/Assist	Comprehensive Forage	21,000 page views

### **Extension Media Summary**

	2019 - December 31, 2020	ant Editor	website	
Monthly Forage News Newsletter	January 1, 2019 - December 31, 2020	Editor/Co-Editor	Comprehensive forage research and extension articles and event updates to county agents, forage and livestock producers and public sector employees across the state of Kentucky. There are also subscribers from surrounding states.	1751 email and hard mail subscribers per months 42,024 over 2019 and 2020
YouTube Channel videos	January 2019 - December 2020	Associate/Assist ant Editor	KYForages YouTube Channel host videos related to forage and livestock management for the transition zone of United States. This area includes states ranging from Virginia to Missouri and Georgia to southern Indiana.	The KYForages YouTube Channel has more than 2,370 subscribers and has been viewed more than 180,000 times in 2019 and 2020. The total watch time for this period was 2.27 million minutes with an average watch time of more than 12 minutes.
Bluegrass Equine Digest	January 2019 - April 2020	Associate/Assist ant Editor	International Equine Magazine - I served on the editorial board and was a regular contributor	10,000 subscribers monthly

# **Extension Field & Community-Based Research**

Henning, Jimmy, Lehmkuhler, Jeff, Henning, Jimmy. Novel Tall Fescue On Farm Demos. (January 1, 2019 - Present). 8 Counties across the state. 8 participants. State extension.

Description: Novel endophyte tall fescue varieties are being demonstrated on farms across the state. Only 8 farms are involved, but each of these farms has already or will host a field day for neighboring farmers to attend. Approximately 300-400 farmers have/will directly attend these field days, but other farmers will learn about the applications from the demo farms through their local county agent and media.

Henning, Jimmy, Lehmkuhler, Jeffrey, Smith, Samuel, Teutsch, Chris. Survey of Forage Quality and Producer Practices for Round Bale Silage Quality in Kentucky. (November 1, 2018 - Present). 6 Fleming, Madison, Shelby, Henry, Campbell and Lincoln Counties. 30 participants. Internal (Assistant Director for Ag and Natural Resources).

Description: Round bale silage is a widely adopted practice in Kentucky, but producers know little of the fermentation quality of the forage or the risk of adverse feeding outcomes like botulism. A long term study was undertaken beginning in late fall of 2018 to sample a wide variety of round bale silage in the Central Kentucky general area to document the fermentation profiles. In 2019 and 2020, data were collected on the production practices associated with each lot of silage. The study has resulted in invited national presentations and national publications. It is ongoing.

Smith, Samuel, Henning, Jimmy, Teutsch, Chris. Southeast Hay Feeding Survey. (April 2020 - December 2020). 13 Southeastern US - 13 SE states are involved. 3500 participants. Internal. Description: This is part of the letter we sent to survey participants:
Extension forage specialists with the University of Kentucky and in the southeast U.S. would like your help in gathering information on hay feeding methods and time required for feeding hay to help develop more effective forage educational programs.

We would appreciate you taking the time to complete a survey regarding your hay feeding methods. Information gathered from the survey will provide direct insights into current hay feeding practices, and allow us to better develop forage educational programs. Additionally, the information provided will be used to prioritize research and Extension outreach efforts moving forward to more effectively address your needs.

Smith, Samuel, Henning, Jimmy, Teutsch, Chris. Southeast Hay Harvest Survey. (November 2019 - July 2020). 13 Southeastern USA - 13 SE states involved. 3500 participants. Internal funding. Description: This is part of the description sent to participants:
 Extension forage specialists with the University of Kentucky and across the Southeast would like your help in gathering information on hay harvest methods and time required for harvesting hay to help develop more effective forage educational programs.

Information gathered from the survey will provide direct insights into current hay harvest practices, and allow us to better develop forage educational programs. Additionally, the information provided will be used to prioritize research and Extension outreach efforts moving forward to more effectively address your needs, both in KY and across the Southeast.

Henning, Jimmy, Smith, Samuel, Teutsch, Chris, Lea, Krista, Sorrell, Don, Berg, Levi, Miracle, Christan.
 Tall Fescue Pasture Survey. (May 1, 2018 - August 31, 2019). 3 Campbell, Henry, Marion
 Counties. 10 participants. County.

Description: Project will document current infection rates and toxicity levels of tall fescue in Kentucky pastures.

Henning, Jimmy, Olson, Gene, Smith, Samuel, Lea, Krista, Teutsch, Chris. Grazing Preference Study with Yak. (April 1, 2018 - May 1, 2019). 1 Menifee County. 1 participants.

# Teaching

### Teaching

<b>Prefix Number - Section</b>	Credit Hours	# Enrolled	Code Term Year
PLS 799 - 003	1.00000 - 4.00000	1	10 Fall 2019-2020
PLS 399 - 013	1.00000 - 6.00000	1	50 Summer 2018-2019
PLS 767 - 024	2.00000 - 2.00000	1	30 Spring 2018-2019
PLS 767 - 029	2.00000 - 2.00000	1	10 Fall 2018-2019
PLS 799 - 003	1.00000 - 4.00000	1	10 Fall 2017-2018

Note: With regards to Spring 2020 TCEs please consider the following from page 121 of the UK Playbook for Fall 2020, "It is essential that performance evaluation take into account the extenuating circumstances brought about by the disruption for faculty in all title series and the extraordinary work accomplished by faculty in response to the disruption. Academic leaders shall reiterate that TCEs should be but one indicator of effective teaching in both periodic merit reviews and tenure/promotion decisions. Evaluation of teaching must go beyond student evaluations alone."

#### **Theses and Dissertations**

#### **Dissertation Committee Chair**

Katie Payne, Forages, "Enhanced Efficiency Nitrogen Fertilizer Effect on Pasture Productivity," Status: Completed: March 2019. (July 2014 - March 2019).

#### **Dissertation Committee Member**

Kelly Mercier, "Grazing and Nitrogen Fertilizer of Warm-season Annual Forage Mixtures," Status: Completed, Completion Date: March 2021. (2017 - 2021).

#### **Master's Thesis Committee Chair**

- Reilly Kaplan-Fardy, "Determining ecological benefits of resource conservation on horse farms"Status: In Process, Expected Completion Date: December 2023. (January 2022 Present).
- Echo Gotsick, "Assess relationship between pasture botanical composition and local climate," Status: In Process, Expected Completion Date: 2023. (January 2021 - Present).
- AnnMarie Riley, Forages, "FORAGE QUALITY OF COOL SEASON PERENNIAL GRASS HORSE PASTURES IN THE TRANSITION ZONE," Status: In-Process, Successfully defended but final copy of thesis not yet submitted, Expected Completion Date: January 2019. (August 2016 -January 2019).

#### **Master's Thesis Committee Member**

- Jordyn Bush, "Detection and Monitoring of Warm-Season Grass Encroachment in Cool-Season Kentucky Pastures using Remote Sensing," Status: In-Process, Expected Completion Date: 2021. (2019 - Present).
- John Allison, "TWO ESSAYS ON INPUT SUBSTITUTION AND OPTIMAL DECISION MAKING IN CROP AND LIVESTOCK PRODUCTION SYSTEMS," Status: Completed. (2017 - May 2019).

### **Directed Student Learning (excluding theses, dissertations)**

- Emma Lynch. Internship Advisor. Monitoring Species Composition, Endophyte and Ergovaline on Horse Pastures. Completed (May 2018 - August 2018).
   Description: Asbury University student completing their Senior Research Project with my program
- Sarah Rhodes. Internship Advisor. *Forage Yield and Quality for Organic Dairy Farms*. Completed (May 2018 August 2018).

Description: Asbury University student completing their Senior Research Project with my program

- Becca Puglisi. Internship Advisor. Detailed Monitoring of Sugar Concentration in Cool Season Grasses. Completed (May 2017 - August 2017).
   Description: UK undergraduate who worked in my program for the Equine Programs Internship
- Kelly Hagan. Internship Advisor. Analyzing quality and quantity of binary and pure stands of low lignin alfalfa. Completed (May 2017 - August 2017).
   Description: Evaluation of Forage Mixtures on Production and Profitability of Organic Dairy Systems
- Olivia Dombi. Internship Advisor. Using Management to Control Nimblewill. Completed (May 2017 August 2017).
   Description: UK undergraduate who worked in my program for the Equine Programs Internship
- Savannah Neese. Internship Advisor. Evaluation of Forage Mixtures on Production and Profitability of Organic Dairy Systems. Completed (May 2017 - August 2017).
   Description: Asbury University student completing their Senior Research Project with my program

# Service

### **Department Service**

#### **Committee Chair**

PSS Extension Coordinator, (July 1, 2013 – December 31, 2021).

#### **Committee Member**

Plant and Soil Sciences Tenure and Promotion committee, (July 1, 2017 – June 30,

2021).

Plant and Soil Sciences Advisory Committee, (July 1, 2015 – December 31, 2021). Editor for PSS Extension Publications

Editor for the Plant Science Department Extension publications (as part of my duties as the Extension Coordinator), (January 2019 - December 2020).

### **College Service**

#### **Committee Chair**

UK Equine Extension Subcommittee, (January 1, 2018 - Present). Committee Member

Equine Executive Committee, (July 1, 2008 - Present). I help to represent extension when this committee meets

UK Equine Advisory Committee, (January 2019 - Present).

### **Professional Service**

### **Committee Chair**

International Grassland Congress, (July 1, 2013 - Present). Committee Member

National Alfalfa and Forage Alliance, (January 2014 - Present). Member

American Forage and Grassland Association, (January 1999 - Present).

American Society of Agronomy, (January 1986 - Present). Reviewer, Journal Article

Grass and Forage Science, (January 2018 - Present).

Canadian Journal of Plant Science, (January 2017 - Present).

Crop, Forage and Turfgrass Management, (January 2017 - Present).

The Rangeland Journal, (January 2017 - Present).

Agronomy Journal, (January 2008 - Present).

# **Professional Development**

### **Professional Memberships**

Alliance for Grassland Renewal. National. (January 2019 - Present).

American Forage and Grassland Association. National. (January 2019 - Present).

American Society of Agronomy. International. (January 2019 - Present).

Crop Science Society of America. International. (January 2019 - Present).

National Alfalfa and Forage Alliance. National. (January 2019 - Present).

### **Development Activities Attended**

#### Sabbatical

<u>Enhance the Organization of the International Grassland Congress</u> . (July 1, 2020 - December 31, 2020). International Grassland Congress. International.

I developed and strengthened the International Grassland Congress (IGC) in my position as IGC Continuing Committee chair. I co-authored 400pp IGC history, initiated publishing all IGC Proceedings online, revised the IGC website, updated IGC constitution, accomplish resolutions from Congresses, and laid the groundwork for the 2023 and 2027 Congresses. My sabbatical has helped set the foundation for future worldwide grassland research and extension and enhanced the University of Kentucky's reputation as a leader in this field.

#### Tutorial

Training Required by the University of Kentucky. (January 2019 - December 2020). University of Kentucky. Lexington.

I have completed numerous training required by UK for my faculty position including: IACUC, Cash Handling, Lab Safety Training, Student Safety Training (Clery Act) and others each year

### **Awards and Honors**

*Chair, International Grassland Congress,* International Grassland Congress. Leadership, Recognition Award, International. (November 2015 - Present).

### **Licensures and Certifications**

#### Certification

KY Pesticide Certification, Number: License number 59638, KY Department of Agriculture Division of Environmental Services, United States. (January 2019 - November 2021).

# C. Jill Stowe, Ph.D.

Associate Professor – University of Kentucky 307 CE Barnhart, Lexington, KY 40546 Office: (859)257-7256 Email: jill.stowe@uky.edu

# **EDUCATION**

05/2002	Ph.D., Texas A&M University, College Station, TX, in Economics			
05/1997	<b>B.S. Texas Tech University,</b> Lubbock, TX, <i>summa cum laude</i> in Mathematics			
EMPLOYMENT				
05/2016 – present	Associate Professor, University of Kentucky, Department of Agricultural Economics (DOE: 60% research, 40% teaching)			
05/2013 - 04/2016	<b>Director of UK Ag Equine Programs and Dickson Professor of Equine</b> <b>Science and Management,</b> University of Kentucky (DOE: 50% administration, 40% research, 10% teaching)			
07/2012 - 05/2013	Associate Professor, University of Kentucky, Department of Agricultural Economics (DOE: 60% research, 40% teaching)			
07/2008 - 06/2012	Assistant Professor, University of Kentucky, Department of Agricultural Economics (DOE: 60% research, 40% teaching)			
08/2010 - 10/2010	Visiting Assistant Professor, Duke University, The Fuqua School of Business			
07/2002 - 06/2008	Assistant Professor, Duke University, The Fuqua School of Business			

# **AREAS OF INTEREST**

Equine markets, incentives in individual decision making, decision making under risk and ambiguity, sports economics

Professor with Tenure						
	Instruction			Administration		
FY 2020	32	63	5	0		
FY 2019	38	57	5	0		
FY 2018	37	58	5	0		
FY 2017	16.25	83.75	0	0		
FY 2016	14	36	0	50		
FY 2015	21	29	0	50		
FY 2014	17.75	29.13	0	53.13		
FY 2013	39.75	60.25	0	0		
Average	26.97	52.02	1.88	19.14		

Distribution of Effort Since Promotion to Associate					
Professor with Tenure					
Instruction Dessauch Courses	A dministratio				

### **TEACHING EXPERIENCE**

University of Kentucky, Department of Agricultural Economics

AEC 300 – Strategic Interaction in Agricultural Economics, 2013

AEC 300/EQM 396 - European Equestrian Experience: The Sport Horse Industry in The Netherlands and Germany, 2019

AEC 302 – Agricultural Management Principles, 2009, 2012

AEC 303 – Microeconomic Concepts in Agricultural Economics, 2012-3, 2017-9

AEC 312 - Equine Markets, 2018-20

AEC 320 – Agricultural Product Marketing and Sales, 2009, 2010, 2011

AEC 395 – Independent Study, 2015 (1), 2016 (2), 2018 (2), 2019 (3)

AEC 503 – Price Theory and Applications, 2008 – 2019

AEC 580 – Independent Study, 2010 (1), 2013 (1), 2014 (1), 2015 (1)

GEN 302 - International Experience in Agriculture and Natural Resources: England Equine Industry, 2009

GEN 300 – Equine Facility Design & Management (co-taught with Dr. Robert Coleman), 2014-2016

Duke University, Fuqua School of Business

Decision 311 (Daytime MBA Program) - Probability and Statistics, 2002 - 2005

Decision 311 (Weekend Executive MBA Program), Probability and Statistics, 2004, 2007, 2008, 2010

Texas A&M University, Department of Economics

ECON 202 – Principles of Microeconomics, 1999, 2000

ECON 311 - Money and Banking, Fall 2001

ECON 323 – Microeconomic Theory, 2000-2002

ECMT 675 – Econometrics I, 1998 (Teaching Assistant)

ECMT 676 – Econometrics II, 1999 (Teaching Assistant)

# **Quantitative Teacher Course Evaluations**

Semester	Course	Enrollment	Responses	Response Rate	Course (Stowe/CAFE avg)	Instructor (Stowe/CAFE avg)
Spring '20	AEC 312	28	11	39.3%	4.1/4.4	4.4/4.5
Fall '19	AEC 303	22	5	22.7%	5/4.3	4.8/4.3
1°an 19	AEC 503	3		Did not meet threshold # of responses		
	AEC 312	21		Did	not meet threshold #	of responses
Spring '19	AEC 300/ EQM 396	14		Did	not meet threshold #	of responses
Fall '18	AEC 303	21	9	42.9%	4.8/4.3	5/4.4
Fall 10	AEC 503	5		Did	not meet threshold #	of responses
Spring '18	AEC 300	40	16	40.0%	3.9/4.2	4.5/4.4
Fall '17 AF	AEC 303	36	14	38.9%	4.6/4.2	4.8/4.3
	AEC 503	9	5	55.6%	5/4.2	5/4.3
Spring '17	Sabbatical					
Fall '16	AEC 503	9	7	77.8%	4.9/4.2	4.7/4.3
Spring '16	EQM 300	33		0.0% See Note 4 below		e 4 below
Fall '15	AEC 503	8	5	62.5%	3.8/3.3	3.8/3.4
Spring '15	GEN 300	37	13	35.1%	3.6/3.4	3.8/3.5
Fall '14	AEC 503	11	7	63.6%	3.7/3.4	4/3.4
Spring '14	GEN 300	38	13	34.2%	3.1/3.3	3.6/3.4
Fall '13	AEC 503	11	9	81.8%	3.5/3.5	3.8/3.5
Spring '13	AEC 300	17	16	94.1%	3.6/3.5	3.9/3.5
spring 15	AEC 303	19	12	63.2%	3.6/3.5	3.7/3.5
Fall '12	AEC 503	16	14	87.5%	3.8/3.4	3.9/3.4

Quantitative Teaching Evaluations as Associate Professor

Note 1: Prior to Fall '16 (gray shaded boxes), teacher course evaluations were based on a 4-point scale. Beginning in Fall '16 (blue shaded boxes), the university moved to a 5-point scale.

Note 2: The university implemented online TCE's in Fall '14.

Note 3: Scores are not disclosed for courses fewer than 5 responses. This policy was revised and endorsed again by the Faculty Senate in April 2016: "To safeguard student anonymity and comply with FERPA, any results (numerical ratings and written comments) for classes with < 5 TCE responses shall not be made available to anyone."

Note 4: Dr. Coleman was inadvertently listed as the sole instructor, so I did not receive any evaluations.

Semester	Course	Enrollment	Responses	Response Rate	Course (Stowe/CAFE avg)	Instructor (Stowe/CAFE avg)
Spring '12	AEC 302	28	22	78.6%	3.3/3.4	3.5/3.4
Spring 12	AEC 303	27	18	66.7%	3.2/3.4	3.2/3.4
Fall '11	AEC 503	8	7	87.5%	4/3.4	4/3.4
Spring '11	AEC 320	41	32	78.0%	3.3/3.4	3.5/3.5
Fall '10	AEC 503	10	10	100.0%	3.8/3.4	3.7/3.5
Spring '10	AEC 320	40	38	95.0%	3.2/3.4	3.3/3.4
E-11 100	AEC 503	51	38	74.5%	3.7/3.3	3.7/3.4
Fall '09	AEC 302	10	7	70.0%	3.4/3.3	3.6/3.4
	AEC 302	26	18	69.2%	3.3/3.3	3.8/3.4
Spring '09	AEC 320	17	15	88.2%	3.8/3.3	3.7/3.4
	GEN 300	6		Did not meet threshold # of responses		
Fall '08	AEC 503	7			3.7/3.3	3.9/3.4

**Quantitative Teaching Evaluations as Assistant Professor** 

Note: Scores are not disclosed for courses fewer than 5 responses; scores are based on a 4-point scale.

### PUBLICATIONS

(<sup>c</sup>designates corresponding author, <sup>\*</sup>denotes graduate student, <sup>+</sup>denotes undergraduate student, <sup>#</sup> denotes senior author, <sup>=</sup> designates shared authorship; otherwise, author order indicates contribution)

Overall citation metrics and total paper citations from Google Scholar as of June 4, 2020:

	All	Since 2015
Citations	1475	636
h-index <sup>1</sup>	12	9
i10-index <sup>2</sup>	13	9

<sup>1</sup>h-index is the largest number h such that h publications have at least h citations.

<sup>2</sup>i10-index is he number of publications with at least 10 citations.

### **Refereed Journal Articles**

1. Heleski, Camie<sup>#c</sup>, **C. Jill Stowe**, Julie Fiedler, Mick Peterson, Colleen Brady, Carissa Wickens, and James N. MacLeod (2020). Thoroughbred racehorse welfare through the lens

of 'Social License to Operate' – with an emphasis on a U.S. perspective. *Sustainability* 12(5), 1706: <u>https://doi.org/10.3390/su12051706</u>. Impact factor (2018): 2.592.

- Bryant<sup>+</sup>, Jenna and C. Jill Stowe<sup>c</sup> (2020). Estimated Profitability of Thoroughbred Yearlings Sold in Auctions in the United States, 2001-2018. *Sustainability* 12(2), 463: <u>https://doi.org/10.3390/su12020463</u>. Impact factor (2018): 2.592.
- Bender, Kathryn<sup>\*</sup>, and C. Jill Stowe<sup>c</sup> (2020). Home off the Range: The Role of Wild Horse Internet Adoptions in Informing Sustainable Western United State Rangeland Management. *Sustainability* 12(1), 279: <u>https://doi.org/10.3390/su12010279</u>. Impact factor (2018): 2.592.
- Troske<sup>c</sup>, SuZanne, Stephanie Waters<sup>\*</sup>, James E. Allen IV, Alison Davis, and C. Jill Stowe (2019). "Central Kentuckians' Willingness to Pay for Horse Farm Preservation." Sustainability. 11(19), 5120: <u>https://doi.org/10.3390/su11195210</u>. Impact factor (2018): 2.592. (Note: by contribution, I was second author on this paper)
- Plant, Emily and C. Jill Stowe<sup>#c</sup> (2019). "Is Moneyball relevant on the racetrack? A New Approach to Evaluating Future Racehorses." *Journal of Sports Economics* 20(3), 428-447. Impact factor (2018): 1.107.
- Ederington<sup>=</sup>, Josh, Jenny Minier<sup>=</sup>, and C. Jill Stowe<sup>=c</sup> (2018). "Risk and Discrimination." *The B.E. Journal of Economic Analysis and Policy*. <u>https://doi.org/10.1515/bejeap-2017-0204</u>. Impact factor (2018): 0.520.
- Hansen<sup>\*</sup>, Charlotte R., C. Jill Stowe<sup>c</sup>, and Sayed Saghaian (2018). "How Determinants of Thoroughbred Stud Fees Change over Time: A Hedonic Price Approach." *Journal of Agribusiness*. 36(1), 89-108.
- 8. Hansen<sup>\*</sup>, Charlotte R. and **C. Jill Stowe**<sup>c</sup> (2018). "Determinants of Weanling Thoroughbred Auction Prices." *Journal of Agricultural and Applied Economics*. 50(1), 48-63.
- Liang\*c, Di; Arnold, L.; Stowe, Christina; Harmon, Robert; Bewley, Jeffrey (2017).
   "Estimating U.S. Dairy Clinical Disease Costs with a Stochastic Simulation Model." *Journal of Dairy Science* 100(2), 1472-1486. Impact factor (2018): 3.082. Total *Google Scholar* citations:76
- Robert<sup>\*</sup>, Marion and C. Jill Stowe<sup>c</sup> (2016). "Ready to Run: Price Determinants of Thoroughbreds from Two-Year-Olds in Training Sales." *Applied Economics* 48(48), 4690-4697. Impact factor (2018): 0.968. Total *Google Scholar* citations: 3
- Hu\*c, Xiaowen and C. Jill Stowe (2016). "The Effect of Income on Health Choices: Alcohol Use." *Journal of Agribusiness* 36: 193-210. Total *Google Scholar* citations: 6
- Nielsen<sup>c</sup>, M.K, E.M. Donoghue<sup>+</sup>, M.L. Stephens<sup>+</sup>, C.J. Stowe, J.M. Donecker, C.K. Fenger (2016). "An ultrasonographic scoring method for transabdominal monitoring of ascarid burdens in foals." *Equine Veterinary Journal* 48(3), 380-386. Impact factor (2018): 2.115.
- Stowe, C. Jill<sup>c</sup> and Michelle Kibler<sup>\*</sup> (2016). "Characteristics of adopted Thoroughbred racehorses in second careers." *Journal of Applied Animal Welfare Science* 19(1), 81-89. Impact factor (2018): 1.191. Total *Google Scholar* citations: 7

- Robert M<sup>\*</sup>, Hu W<sup>=</sup>, Nielsen MK<sup>=c</sup>, Stowe CJ<sup>=</sup> (2015). "Attitudes towards implementation of surveillance-based parasite control on Kentucky Thoroughbred farms – current strategies, awareness, and willingness-to-pay." *Equine Veterinary Journal* 47:6, 694-700. Impact factor (2018): 2.115. Total *Google Scholar* citations: 40
- 15. Hughes S<sup>\*c</sup>, Stowe CJ, Troedsson MHT, Squires EL (2013) "The Athletic Performance of Thoroughbred Racehorses out of Mares Suspected of Placentitis during Gestation." *Journal* of Equine Veterinary Science 33:5, 375. Impact factor (2018): 0.927. Total Google Scholar citations: 6
- Plant, Emily and C. Jill Stowe<sup>#c</sup> (2013) "The Price of Disclosure in the Thoroughbred Yearling Market." *Journal of Agricultural and Applied Economics* 45:2, 1-15. Total *Google Scholar* citations: 9
- 17. Stowe, C. Jill (2013). "Breeding to Sell: A Hedonic Price Analysis of Leading Thoroughbred Stud Fees." *Applied Economics* 45:7, 877-885. Impact factor (2018): 0.968. Total *Google Scholar* citations: 12

#### Promotion to Associate Professor with Tenure Received 2012

- Poerwanto<sup>\*</sup>, Devie and C. Jill Stowe<sup>c</sup> (2010). "The Relationship Between Sire Representation and Average Yearling Price in the Thoroughbred Industry." *Journal of Agribusiness* 28(1), 61-74. Total *Google Scholar* citations: 9
- Stowe, C. Jill<sup>c</sup> and Billy Ajello<sup>+</sup> (2010). "A Hedonic Price Analysis of Differentiated Products of Unknown Quality: Freshman Sire Stud Fees in the Thoroughbred Breeding Industry." *Journal of Agribusiness* 28(1), 19-30. Total *Google Scholar* citations: 8
- 20. **Stowe, C. Jill**<sup>c</sup> and Scott Gilpatric (2010). "Cheating and Enforcement in Asymmetric Tournaments." *Southern Economic Journal* 77(1), 1-14. Impact factor (2018): 0.828
- Neilson<sup>c</sup>, William and Jill Stowe<sup>=</sup> (2010). "Piece-Rate Contracts for Other-Regarding Workers." *Economic Inquiry* 48(3), 575-586. Impact factor (2018): 1.265. Total *Google Scholar* citations: 78
- Stowe, C. Jill<sup>#</sup>, Janie M. Chermak<sup>c</sup>, and Kate Krause (2010). "Preferences for Privacy and Security: An Experimental Investigation." *Economics of Peace and Security Journal* 5(1), 26-33.
- 23. Stowe, C. Jill (2009). "Incorporating Morale into a Classical Agency Model: Incentives, Effort, and Organization." *Economics of Governance* 10, 147-164. Impact factor (2018): 0.467. Total *Google Scholar* citations: 21

#### Arrived at University of Kentucky 2008

24. Tankersley<sup>\*c</sup>, Dharol, C. Jill Stowe, and Scott A. Huettel (2007). "Altruism is Associated with an Increased Neural Response to the Perception of Agency" *Nature Neuroscience* 10, 150-151. Impact factor (2018): 21.126. Total *Google Scholar* citations: 257

- Huettel<sup>c</sup>, Scott A., C. Jill Stowe, Evan M. Gordon, Brent T. Warner, and Michael L. Platt (2006). "Neural Signatures of Economic Preferences for Risk and Ambiguity." *Neuron* 49, 765-775. Impact factor (2018): 14.403. Total *Google Scholar* citations: 675
- 26. Neilson<sup>c</sup> William and Jill Stowe<sup>=</sup> (2002). "A Further Examination of Cumulative Prospect Theory Parameterizations." *Journal of Risk and Uncertainty* 24(1), 31-46. Impact factor (2018): 2.122. Total *Google Scholar* citations: 170

### **Peer-Reviewed Book Chapters**

Coleman, R.J., M.G. Rossano, C.J. Stowe<sup>#</sup>, S. Johnson, A.F. Davis, J.E. Allen IV, A.E. Jarrett, G. Grulke, L. Brown and S. Clark (2015). "The 2012 Kentucky Equine Survey: importance and impact of the equine industry in Kentucky." In C. Vial and R. Evans (eds), *The New Equine Economic in the 21<sup>st</sup> Century* (45 – 54). The Netherlands: Wageningen Academic Publishers.

### **Other Peer-Reviewed Publications**

- 1. Burdine, Kenny and C. Jill Stowe<sup>=</sup> (2015). "Kentucky Equine Market Continues to Show Improvement." *Equine Disease Quarterly* 24(2), 5.
- 2. **Stowe<sup>#</sup>**, **C. Jill** and Mary Rossano (2013). "Conducting a Scientific Survey of a State's Equine Population." *Equine Disease Quarterly* 22(3), 5.
- 3. **Stowe, C. Jill** (2010). "The Value of Horses to Kentucky's Economy." *Equine Disease Quarterly* 19(1), 5.
- 4. **Stowe<sup>=</sup>**, **C. Jill** and Kenny Burdine. (2009). "Understanding the Impact of Horse Shows and Competitions in Kentucky." Agricultural Economics Extension Series 2009-29.

#### **Reports**

- Safe Return to Riding (2015). Saddle Up Safely, University of Kentucky. Available at <u>http://ukhealthcare.uky.edu/uploadedFiles/about/Community\_New/Programs/Saddle\_Up/Pub</u> <u>lications/saddle-up-safely-safe-return-to-riding.pdf</u>
- 2. 2012 Kentucky Equine Survey (2013). Available at <u>http://equine.ca.uky.edu/kyequinesurvey</u> (lead author).

#### Work in Progress

- 1. **Stowe, C. Jill,** Michelle L. Kibler, and Michael Barrowclough. "Estimating the Demand for Equine Insurance." In preparation for submission to *Journal of Agricultural and Resource Economics*.
- 2. Morresey, Peter R. and C. Jill Stowe. "Economic Impact of Equine Viral Diseases on the Equine Industry." In U. Balasuriya (ed), *Viral Diseases of the Horse* (pp pp, Chapter 7).

New York City: Springer Publishing Company. (Chapter has been completed and accepted – due to unforeseen circumstances, new manuscript delivery deadline for remaining authors is 3/31/2021)

- 3. Evans, Keith, Chezum, Brian, Emily Plant, and **C. Jill Stowe**. "Middleman Reputation in a Two-Sided Market." Under review at *Southern Economic Journal*.
- 4. Witt<sup>+</sup>, Julie and **C. Jill Stowe**. Estimating the Optimal Stud Fee-to-Mare Value Ratio in the Market for Thoroughbred Yearlings. Expected completion date: 12/31/2020
- Scott, Madison<sup>+</sup>, C. Jill Stowe, and Emily J. Plant. "The Need for Speed: Breeze Times in Thoroughbred Two-Year-Old in-Training Sales and Career Performance." Expected completion date: 12/31/2020
- 6. Kalberg<sup>\*</sup>, Kolter O. and **C. Jill Stowe**. "Insensitivity to Losses in the Market for Thoroughbred Yearlings: An Empirical Test of Cumulative Prospect Theory". Expected completion date: 3/31/2021
- 7. Chezum, Brian, **C. Jill Stowe**, and Michael Schuckers. "Some Evidence of Information Aggregation in Auction Prices." Expected completion date: 3/31/2021

### **ACADEMIC PRESENTATIONS & CONFERENCES**

(\* denotes graduate student, ^ denotes presenter, <u>underline denotes poster</u>)

- Camargo<sup>^</sup>, F., D. Han, E. Erlandson, C.J. Stowe, W. Gombeski Jr., C. Mattacola. "Saddle Up Safely Guidelines for Return to Horse-Related Activities After Concussion," 5th International Consensus Conference on Concussion in Sport, Berlin, Germany, October 2016.
- 2. **Stowe, C. Jill.** "Home off the range: Managing wild horse herds and public land users' rights," EAAP Annual Meeting, Copenhagen, Denmark, 2014 (invited)
- 3. **Stowe, C. Jill.** "The horse as a key player of local development in the United States in the 3<sup>rd</sup> millennium," EAAP Annual Meeting, Copenhagen, Denmark, 2014 (invited)
- 4. **Stowe, C. Jill.** "Home Off the Range," Southern Economic Association Meetings, Tampa, FL, 2013. (session organizer)
- 5. **Stowe, C. Jill.** "2012 Kentucky Equine Survey," EAAP Annual Meeting, Nantes, France, 2013 (invited).
- Stowe, C. Jill. "2012 Kentucky Equine Survey," ESS Annual Meeting, Mescalero, NM, 2013.
- Plant, Emily and C. Jill Stowe<sup>^</sup>. "A New Approach to Revealing Hidden Information in a Lemons Market," Southern Economic Association Meetings, New Orleans, LA, 2012 (session organizer).
- 8. Kalberg<sup>\*</sup>, Kolter and **C. Jill Stowe**<sup>^</sup>. "Insensitivity to Losses in the Market for Thoroughbred Yearlings: An Empirical Test of Cumulative Prospect Theory," Southern Economic Association Meetings, Washington, DC (session organizer)

- 9. Plant, Emily and **C. Jill Stowe**<sup>^</sup>. "The Price of Disclosure in the Market for Thoroughbred Yearlings Agricultural and Applied Economics Association, Pittsburgh, PA, 2011.
- 10. **Stowe, C. Jill.** Working with undergraduate students to develop 'publishable' submissions for peer-reviewed journals. National Association of Equine Affiliated Academics, Murfreesboro, TN, 2011.
- 11. Chezum, Brian, **C. Jill Stowe**<sup>^</sup>, and Michael Schuckers. "Some Evidence of Information Aggregation in Auction Prices," Southern Agricultural Economics Association Meetings, Corpus Christi, TX, 2011.
- 12. Chezum, Brian, and **Stowe, C. Jill<sup>^</sup>.** "The Informativeness of Prices as Quality Signals in the Thoroughbred Industry," Southern Economic Association Meetings, Atlanta, GA, 2010 (session organizer).
- 13. **Stowe, C. Jill.** "Breeding to Sell: A Hedonic Price Analysis of Leading Thoroughbred Stud Fees," Southern Economic Association Meetings, San Antonio, TX, 2009.
- 14. Burdine, Kenny and C. Jill Stowe<sup>^</sup>. "The Economic Climate of Kentucky's Horse Industry," with Kenny Burdine, University of Kentucky Department of Veterinary Science, Equine Diagnostic and Research Seminar, 2009.

# **INDUSTRY-RELATED PRESENTATIONS & CONFERENCES**

(\* denotes graduate student, ^ denotes presenter, <u>underline denotes poster</u>)

- 1. **Stowe, C. Jill** "Foal Finances: Economic Considerations of Producing a Foal from Breeding to Weaning for Small Breeders." UK Equine Research Showcase, Lexington, KY, 2020.
- 2. **Stowe, C. Jill**. "The Economic Impact of Kentucky's Horse Industry," 2016 Southern Legislative Conference, Lexington, KY, 2016 (invited speaker)
- 3. **Stowe, C. Jill**. Kentucky Agricultural Panelist, International Society of Agricultural Safety and Health Annual Conference, Lexington, KY, 2016 (invited speaker)
- 4. **Stowe, C. Jill**. "Two-year-old in Training Sales: Breeze Times, Sales Prices, and Career Performance," UK Equine Research Showcase, Lexington, KY, 2016.
- 5. **Stowe, C. Jill.** "2012 Kentucky Equine Survey Economic Impact Results," UK Equine Research Showcase, Lexington, KY, 2014.
- 6. **Stowe, C. Jill.** "2012 Kentucky Equine Survey Phase I Results." UK Equine Research Showcase, Lexington, KY, 2013.
- 7. Burdine, Kenny and **Stowe, C. Jill<sup>^</sup>.** "The Economic Climate of Kentucky's Horse Industry," Kentucky Breeders' Short Course, Lexington, KY, 2010.
- 8. **Stowe, C. Jill.** "Breeding to Sell: A Hedonic Price Analysis of Leading Thoroughbred Stud Fees," Southern Economic Association Meetings, San Antonio, TX, 2009.

# **Conference Presentations Prior to Appointment at University of Kentucky**

- Tournaments, Contests, and Relative Performance Evaluation Conference (2008)
- Midwest Theory and International Economics Meetings (2001, 2003, 2006)
- Institute for Operations Research and the Management Sciences Annual Meeting (2004)
- Southern Economic Association Meetings (2001, 2003)
- Risk, Uncertainty, and Decision (2003)
- ASSA Public Choice Meetings (2001)
- Experimental Science Association (2000)

# **Other Conferences Attended**

- American Agricultural Economics Association (2007)
- Behavioral Decision Research in Management (2004)
- Decentralization (2004)
- Equine Science Symposium (2009)
- Institute for Operations Research and the Management Sciences Annual Meeting (2003)
- National Association for Equine Academic Affiliates (2009)
- Society for Neuroeconomics (2004, 2005)

# **Invited Seminar Presentations**

College of the Holy Cross (2002), East Carolina University (2004), Fuqua School of Business Decision Sciences Seminar (2001, 2004, 2006, 2007), Texas A&M University (2001, 2003), Texas Tech University (2004), University of Kentucky (2007 & 2009 Ag Econ Dept, 2008 Econ Dept), University of New Mexico (2001, 2007), University of Notre Dame (2002), University of Virginia (2002)

# **GRANTS AND AWARDS**

# **Research Grants** (Total amount awarded: \$1,099,329; Total amount under Dr. Stowe's control: \$666,828)

# **Grants funded**

Title of Project: Kentucky's Equine Markets Amidst COVID-19: Community Impacts Source of Support: University of Kentucky CURE Alliance (university) Amount Awarded: \$6,501 Amount under Dr. Stowe's Control: \$6,501 Effective and Expiration Dates: July 1, 2020 – June 30, 2021 Personnel: C. Jill Stowe (PI), Robert Coleman Title of Project: Ecological and Economic Benefits of Resource Conservation on Horse Farms Source of Support: National Resources Conservation Service Conservation Innovation Grants (nationally competitive) Amount Awarded: \$361,542 Amount under Dr. Stowe's Control: \$80,775 Effective and Expiration Dates: 2020-2022 Personnel: S. Ray Smith, Krista Lea, C. Jill Stowe (Co-PI), Kathryn Payne (Co-PI)

Title of Project: Economic Considerations of Aggressively Treating the Influenza Virus in Equines Source of Support: Zoetis LLC Amount Awarded: \$57,344 Amount under Dr. Stowe's Control: \$57,344 Effective and Expiration Dates: 2014-2015 Personnel: C. Jill Stowe (PI)

Title of Project: Transabdominal ultrasonography: A monitoring tool for Parascaris equorum burdens in foals Source of Support: Zoetis LLC Amount Awarded: \$25,293 Amount Under Dr. Stowe's Control: \$500; salary and benefit costs for both PI's covered by university cost share Effective and Expiration Dates: 2013-2014 Personnel: Martin K. Nielsen, C. Jill Stowe (Co-PI)

Title of Project: Objective evaluation of deworming regimens in horses – growth rates, disease incidence, and financial aspects Sound of Support: Zoetis LLC Amount Awarded: \$126,941 Amount under Dr. Stowe's Control: \$35,203 Effective and Expiration Dates: 2013-2015 Personnel: Martin K. Nielsen, C. Jill Stowe (Co-PI), Joe Pagan, Steve Caddell Title of Project: Growing Kentucky's Equine Economy: Establishing a Baseline with the Kentucky Equine Survey Source of Support: Kentucky Agricultural Development Fund, Governor's Office of Agricultural Policy Amount Awarded: \$300,000 Amount under Dr. Stowe's Control: \$300,000 Effective and Expiration Dates: 2011-2013 **Personnel:** Ginny Grulke, **C. Jill Stowe** (Co-PI), Mary Rossano, Robert Coleman, Alison Davis, Timothy Capps, Leland Brown, Shawn Clark, Holly Weimers, Audrey Jarrett *Note: I served as the project lead and PI, but Mrs. Grulke was formally recognized as PI due to possible conflicts of interest between the University of Kentucky and KADF board. In addition to I also lead the efforts to successfully raise \$100,000 in gift funds to help complete the funding needs for the 2012 Kentucky Equine Survey.* 

Title of Project: Towards Optimizing the Health and Well-Being of Retired Thoroughbred Racehorses Source of Support: Equine Drug Research Council Amount Awarded: \$21,708 Amount under Dr. Stowe's Control: \$21,708 Effective and Expiration Dates: 2011-2012 Personnel: C. Jill Stowe (PI), Michelle Kibler

Title of Project: 2012 Kentucky Equine Survey Source of Support: College of Agriculture through Hatch Funds as seed money Amount Awarded: \$200,000 Amount under Dr. Stowe's Control: \$200,000 Effective and Expiration Dates: 2011-2016 Personnel: C. Jill Stowe (PI), Mary Rossano, Robert Coleman

# College of Agriculture, Food and Environment Research Activity Awards

- 2011; Amount Awarded: \$1,635
- 2010; Amount Awarded: \$550
- 2009; Amount Awarded: \$1,000
- 2008; Amount Awarded: \$500

# **Duke University Provost Common Fund Award**

• 2004-2005; Amount Awarded: \$43,500 (Dr. Michael Platt, PI)

# **Teaching-related grants funded**

Title of Project: Equine Study Abroad to Germany and the Netherlands Source of Support: University of Kentucky Education Abroad Program Development Grant Amount Awarded: \$2,500 Effective and Expiration Dates: Summer 2018 Personnel: C. Jill Stowe

# **Grants not funded**

Title of Project: "Coupled Socio-economic and Ecological Dynamics in a Pasture-Livestock System under Climate and Land Use Changes" Source of Support: National Science Foundation (nationally competitive) Amount Requested: \$600,000 Personnel: Wei Ren (PI), C. Jill Stowe (Co-PI), Yoko Kusunose (Co-PI), S. Ray Smith (Co-PI), Stacy Vincent (Co-PI)

Title of Project: Horse Owner Demand for Treatment of Equine Asthma Syndrome Source of Support: Boehringer Ingelheim Amount Requested: \$9,925 Personnel: C. Jill Stowe (PI), Michelle L. Kibler

Title of Project: Quantifying Kentucky's Unwanted Horses in Non-Profit Organizations, Their Impact on the Commonwealth, and Evaluating Potential Solutions
 Source of Support: Morris Animal Foundation
 Amount Requested: \$69,175
 Personnel: C. Jill Stowe (PI), Roberta Dwyer, Robert Coleman, Michelle L. Kibler

Title of Project: An Economic Feasibility and Impact Study of Alternative Gaming and Kentucky's Thoroughbred Racing Industry
Source of Support: Equine Drug Research Council
Amount Requested: \$70,170 for 2 years
Personnel: C. Jill Stowe (PI), Alison F. Davis, Wuyang Hu

# **PROFESSIONAL DEVELOPMENT**

# (On-campus trainings)

- 2020 CELT Teaching with iPads
- 2019 Experiential Learning
- 2018 Personal and Campus Safety
- 2016 Managing Bias in the Faculty Search Process
- 2016 QPR Suicide Prevention Training Workshop

2016 - Accommodating Accommodations: How to Work with Students with Disabilities or Emotional Concerns Workshop

- 2015 UK HR Leadership Training: Faculty Supervisors//Positive Coaching
- 2014 UK HR Leadership Training: Effective Team Environment
- 2013 UK HR Leadership Training: Faculty Supervisors
- 2011 College of Agriculture Spring Teaching Workshop
- 2008 College of Agriculture Fall Teaching and Advising Workshop

### CONSULTING

- Kentucky Thoroughbred Association/Kentucky Thoroughbred Owners and Breeders, Keeneland, Inc., Churchill Downs Incorporated (2018)
- The Jockey Club (2018)
- Coolmore Australia (2016)
- **Sam-Son Farm** (2016)
- American Horse Publications (2009 2010, 2012, 2015, 2018)
- **CarMax** (2007 2008)

# SERVICE

# **Administrative Positions**

Director, UK Ag Equine Programs, 2013 – 2016 Co-director, Center for Neuroeconomic Studies at Duke University, 2005-2006

# **Professional Service**

Editorial council member for Journal of Agricultural and Applied Economics, 2019 - present

External Reviewer for the cyclical program review of the Equine Management major in the Bachelor of Bio-Resource Management program at the University of Guelph, 2019

Referee for: American Economic Review, American Journal of Agricultural Economics, Applied Economics, Applied Economic Perspectives & Policy, Australian Journal of Agricultural and Resource Economics, Canadian Journal of Agricultural Economics, Choices, Economic Inquiry, Equine Veterinary Education, Experimental Economics, Journal of Agribusiness, Journal of Applied and Agricultural Economics, Journal of Agricultural Finance, Journal of Applied Animal Welfare Science, Journal of Economic Behavior and Organization, Journal of Soil and Water Conservation, International Journal of Agricultural Management, International Journal of Game Theory, Managerial and Decision Economics, PLOS ONE, Sustainability, Transportmetrica

Session organizer at SEA meetings, 2010-2013

### University of Kentucky

UK Sexual Misconduct Appeals Board, 2018-2020 Committee to redefine Gluck Equine Research Center, 2018 UK Veterinary Diagnostic Laboratory Advisory Committee, 2014 – 2016 University of Kentucky Budget Model Faculty Advisory Work Team, 2013 – 2014 Faculty advisor for UK Dressage and Eventing Team, 2011 – 2018 Faculty advisor for UK Dressage Team, 2018 – present Faculty advisor for UK Eventing, 2018 - present

#### **Department of Agricultural Economics**

Ag Econ Search Committee for two faculty positions, 2018-2019 Agricultural Economics Faculty Performance Evaluation Review Committee, 2014 – 2016; 2018-2020 Agricultural Economics Department Support Committee, 2014 – 2017 Agricultural Economics Open Position Search Committee, 2013 Agricultural Economics Website Committee, 2011-2012 Agricultural Economics Undergraduate Program Committee, 2011 – 2014 Agricultural Economics Department Chair Search Committee, 2010-2011 Agricultural Economics Graduate Student Admissions Committee, 2010-2013 Agricultural Economics Graduate Program Committee, 2008 – 2011; 2017 - 2020 Agricultural Economics Graduate Student Second-Year Paper Review Committee, 2010 - 2013; 2017 – 2020

## UK Ag Equine Programs

Equine Science and Management Curriculum Committee, 2019 - present UK Ag Equine Programs Research Subcommittee, 2018 - present Equine Programs Internship Coordinator Search Committee Chair, 2017-2018 Equine Programs Lecturer Search Committee Chair, 2015 - 2016 Equine Programs Academic Coordinator Search Committee, 2012 Equine Initiative Internship Appreciation Banquet Committee, 2011 Equine Initiative Executive Committee, 2009 – 2016 Equine Science and Management Steering Committee, 2009-present (interim chair, 2014 – 2016)

#### Ph.D. Students

<u>Chair</u> Xiaowen Hu (Agricultural Economics, 12/2016)

<u>Committee Member</u> Jerrod Penn (Agricultural Economics, 5/2017) Fuad Alagsam (Agricultural Economics, expected 8/2016?) Emily Plant (Marketing, 5/2010)

## **M.S.** Students

<u>Chair</u> Sarah Sebbane (expected May 2022) Xuirui Cui (May 2016) Charlotte Hansen (May 2016) Omotoyosi Adekunle (May 2015) Marion Robert (December 2013) Kolter Kalberg (December 2011)

<u>Committee Member</u> Willie Bedell (2017) Di Liang (2017; Animal and Food Sciences) Stephanie Johnson (2016) Xinran Xu (2015; non-thesis) Yang Zou (2105; non-thesis) Wei Wan (2014 & 2016; non-thesis) Bryn Wells (2012; non-thesis) Sydney Hughes (2011; Department of Veterinary Science) Devie Poerwanto (2011) Daniel Staley (2011; non-thesis)

### Ph.D. Outside Committee Member

Karmella Dolchek (Animal and Food Sciences, 12/2017) Christy Brady (Sociology, 12/2016) Emily Bedwell (Public Administration, 12/2016) Lisa Conley (Sociology, 12/2014) Baiqing Zhang (Sociology, 8/2014) Amber Sergent (History, 5/2012) Terry Lunsford (Community Leadership and Development, 5/2011)

## Faculty Mentoring Committee

Jordan Shockley, 8/2015 - present Yoko Kusunose, 8/2011 – present

## French Students

Marion Robert Charlotte Bertrand Annabelle LeBorgne

### **Undergraduate Mentor**

Jenna Bryant (EQM 399 internship, Spring 2020) Julie Witt (Chellgren Student Fellow, Spring 2017) Elizabeth Lampert (Honors Program Senior Capstone Project, Spring 2015) Madison Scott (Chellgren Student Fellow, Spring 2014)

## **Duke University**

PhD committee member for Arwen Long (Neurobiology)
Faculty Athletics Associate Program Representation, 2006 – 2008
Academic Council, 2004 – 2006
Fuqua Women's Faculty Network Co-organizer, 2005-2006
Judge for Deloitte & Touche case competition, 2004
Faculty participant in a T90 grant: "Training in the Interdisciplinary Science of Self-Regulation"

## **Industry Engagement**

- "COVID-19 and the Equine Economy." *TheHorse* EQUINE INNOVATORS podcast. Aired April 27, 2020. <u>https://thehorse.com/188044/equine-innovators-covid-19-and-the-equine-economy-with-dr-jill-stowe/</u>
- Quoted in: Stewart Truelsen. "Horse racing looks for a winner." May 5, 2016. *Michigan Farm News*. <u>https://www.michiganfarmnews.com/horse-racing-looks-for-a-winner</u>
- Quoted in: Anne Charles Doolin. "Measuring Kentucky's equine industry." October 11, 2013. *The Lane Report*. <u>https://www.lanereport.com/25093/2013/10/measuring-kentuckys-equine-industry/</u>
- Contributor to: Allison Schrager (2019). An Economist Walks into a Brothel: And Other Unexpected Places to Understand Risk. Portfolio/Penguin: New York.
- Masterson Equestrian Trust Board of Directors, 2013 2018 (vice president, 2014; president, 2015-2017)
- Speaker at 4-H Volunteer and Leaders Forum (2012, 2020)
- Kentucky Three-Day Event Volunteer for UK Ag Equine Programs (2011 present)
- University of Kentucky Saddle Up Safely volunteer for 2010 Alltech FEI World Equestrian Games (2010)

- 2010 Alltech FEI World Equestrian Games dressage volunteer (2010)
- Volunteer for Kentucky Equine Youth Festival (2010)
- Quoted in article appearing in *The Lane Report* (2010)
- Contributor to *The Bluegrass Equine Digest* on *TheHorse.com* (2011, 2013)
- Kentucky Equine Networking Association meetings, 2011 2016
- Kentucky Equine Education Project meetings, 2008 2016
- Kentucky Thoroughbred Farm Managers' Club meetings, 2008 2016
- Hats Off Day, 2008 2016

# **Colette F. Tebeau**

# **EDUCATION**

Clemson University, Clemson, SC M.S. in Animal and Veterinary Sciences, emphasis in Reproductive Physiology Minor in Experimental Statistics Graduated: August 2007

Clemson University, Clemson, SC B.S. in Animal and Veterinary Science: Option in Pre-Veterinary Medicine Graduated: May 2005

> Curtin University, Perth, Australia Study Abroad Semester February 2003-July 2003

## M.S. RESEARCH

Working with novel FSH delivery methods for use during superovulation protocol in equines and bovines

# WORK EXPERIENCE

## University of Kentucky; Lexington, Kentucky September 2016 – Present

- Pre-Vet Academic Coordinator; responsible for advising freshman and sophomore pre-vet students across the university. Additional responsibilities include meeting with prospective students and their families, organizing and maintaining pre-veterinary resources, teaching, and working with other advisors across the university
  - o Courses taught
    - ASC 209 Veterinary Medical Terminology
    - ASC 310 Equine Anatomy
    - ASC 399 Experiential Learning in Animal Science
    - ASC 395- Special Problems in Animal Science
    - EXP 397 Experiential Fieldwork

# Utah State University; Logan , Utah October 2008 – July 2015

- Equine Lecturer 2008-2015; responsible for organizing and teaching a wide variety of equine specific courses, including but not limited to; Fundamentals of Riding I (ADVS 1600), Fundamentals of Riding II -Hunter (ADVS 2650), Horse Production (ADVS 2190), Horse Health Care (ADVS 2300), Equine Evaluation and Judging (ADVS 3600), Introduction in to Equine Science (ADVS 1500), Stable Management, Teaching and Leadership, and Special Topics
- IHSA Equestrian Team Coach 2008-2015; responsible for organizing and coaching the USU English Equestrian Team. Responsibilities included weekly

coaching sessions, travelling to competitions, interviewing potential team members, yearly paperwork and correspondence, and organizing/running an annual/bi-annual home horse show

- Barn Manager 2008-2012; responsible for 40+ horse's health and daily maintenance. Duties include (but not limited to), feeding, cleaning, watering, arena/stable maintenance, exercise, record keeping, daily/monthly/annual medical care, night call, purchasing/selling of animals, daily interactions with students, staff, and community, and organization/running of public events
- State 4H Coordinator for Equine Events 2009-2012; responsible for maintaining and updating state rules and regulations for Western and English 4H riding, organizing and running equine events of 4H State Contest and English State Show, and assisting with Western State Show. Additionally settled disputes and provided assistance to county extension personnel as needed through presentations, data collection and daily correspondence.
- Other 2008-2015; Additional responsibilities include interacting with potential students and their families, participating as an active member of the USU Equine User Group, assisting with program growth and development, facilitating interactions with students and other equine facility/staff, and providing support as needed during nights, weekends, and holidays.

# Sliding Creek Horse Farm; Liberty, SC

# February 2008 - September 2008

• Horse Trainer; responsible for the training of two young horses increasing their endurance and improving their behavior on the ground and while riding.

# Clemson University; Clemson, SC

# May 2008 – July 2008

• Research Assistant; responsible for handling and drawing blood from sheep and obtaining oocytes from bovine ovaries for use in other research projects. Additional responsibilities include sterilizing media, performing Bradford assays and other basic laboratory skills.

# Royal Meath Equestrian Center; Drumree, Co. Meath, Ireland September 2007 – December 2007

• Assistant Manager; responsible for general care, training, and sale of horses. Responsibilities include instructing horsemanship courses, teaching riding lessons, organizing and running holiday horse camps.

# Clemson University; Clemson SC

# 2005-2007

- Instructor for Horsemanship course and Farm practicum course
- Teacher's Assistant for Introduction into Animal Science, Equine Breeding Practicum, Horse Techniques, and Advanced Equine Management
- Equine and bovine breeding, bleeding, ultrasound, and palpation training
- Basic laboratory techniques such as pippetting and hood work, with experience with Bradford protein assay and Radioimmunoassay (RIA)

# Dr. Kristine L. Urschel

College of Agriculture, Food and Environment Department of Animal and Food Science

# **Administrative Assignments**

Director of Undergraduate Studies, Equine Science and Management. May 1, 2017 - Present
 Responsibilities: I oversee the Curriculum Committee for the BS Equine Science and Management
 program and also assist with student recruitment activities, student advising and program
 assessment. I also provide input and feedback to Deans, Department and Program Chairs,
 Academic Coordinators and others, as requested, regarding the needs and performance of the
 students in the Equine Science and Management Program.

# **Research and Scholarship**

### **Intellectual Contributions**

\* = Senior Author ~ = Corresponding Author + = Grad/Prof Student # = Post Doc ^ = Undergraduate WOS = Web of Science JIF = Journal Impact Factor TC = Journal Total Cites SNIP = Source Normalize Impact per Paper SJR = Scimago Journal Rank

#### Published

#### Journal Article, Academic Journal

+ Mok, C. H., Levesque, C. L., \* ~ Urschel, K. L. (2021). Evaluation of threonine requirements in mature horses fed 1:1 ratio of forage to concentrate using the indicator amino acid oxidation technique, Animal Feed Science and Technology, 282. doi: 10.1016/j.anifeedsci.2021.115133 WOS Metric Year: 2020 | Category: Agriculture, Dairy and Animal Science | JIF: 3.247 | Rank by JIF: 8/63 | TC: 15084 | Rank by TC: 8/80 Scopus Metric Year: 2020 | Category: Animal Science and Zoology | CiteScore: 4.6 | Highest Percentile: 92 | Rank: #/N: 33/416 | SNIP: 1.029 | SJR: 1.706 Author Role: Dr. Urschel was the Principal Investigator for this study. She was responsible for obtaining the extramural funding, study design and mentoring the graduate student in all aspects of the study, including the preparation and submission of the final manuscript. # ~ Loos CMM, McLeod, K. R., Stratton, S. C., van Doorn, D. A., Kalmar, I. D., Vanzant, E. S., \* Urschel, K. L. (2020). Pathways regulating equine skeletal muscle protein synthesis respond in a dose-dependent manner to graded levels of protein intake., Journal of Animal Science, 98(9), skaa268 (8 pages). doi: 10.1093/jas/skaa268 WOS Metric Year: 2021 | Category: Agriculture, Dairy and Animal Science | JIF: 3.159 | Rank by JIF: 12/63 | TC: 38102 | Rank by TC: 2/63 Scopus Metric Year: 2020 | Category: Animal Science and Zoology | CiteScore: 3.9 | Highest Percentile: 84 | Rank: #/N: 65/416 | SNIP: 1.282 | SJR: 0.928

Author Role:Dr. Loos is the Post-Doctoral Scholar that designed, coordinated and carried out the study and its analyses and prepared the manuscript.

Dr. Kyle McLeod provided expertise in study design, data interpretation and assistance with manuscript preparation.

Sophie Stratton provided technical assistance with sample collection and analysis procedures.

Dr. David van Doorn is an external collaborator who contributed to study design, data interpretation and manuscript preparation.

Dr. Isabelle Kalmar is an external collaborator who contributed to study design, data interpretation and manuscript preparation.

Dr. Eric Vanzant provided expertise in statistical analysis and data interpretation.

Dr. Kristine Urschel provided expertise in study design, data interpretation and assistance with manuscript preparation.

+ Loos CMM, + Dorsch, S. C., + Elzinga, S. E., Brewster-Barnes, T., Vanzant, E. S., Adams, A. A., \* ~ Urschel, K. L. (2019). A high protein meal affects plasma insulin concentrations and amino acid metabolism in horses with equine metabolic syndrome., *Veterinary journal (London, England : 1997)*, 251, 105341. doi: 10.1016/j.tvjl.2019.105341

WOS Metric Year: 2019 | Category:Veterinary Sciences | JIF: 2.115 | Rank by JIF: 25/141 | TC: 8465 | Rank by TC: 9/141

Author Role:Dr. Caroline Loos worked with other contributors to design the study and had the primary responsibility for conducting all sample collection and analysis procedures, interpreting the results and preparing the manuscript, as a part of her PhD program. Sophie Dorsch provided technical assistance with sample collection and analysis procedures. Dr. Sarah Elzinga Provided technical assistance with sample collection and the interpretation of the results.

Tammy Brewster-Barnes provided technical assistance with sample collection and analysis procedures.

Dr. Eric Vanzant provided expertise in statistical analysis and data interpretation.

Dr. Amanda Adams assisted with study design and data interpretation.

Dr. Kristine Urschel provided expertise in study design, data interpretation and assistance with manuscript preparation.

# ~ AL-Amery, M., Downie, B., DeBolt, S., Crocker, M., Urschel, K. L., Goff, B. M., Teets, N. M., Gollihue, J., \* Hildebrand, D. F. (2019). Proximate composition of enhanced DGAT high oil, high protein soybeans, *Biocatalysis and Agricultural Biotechnology*, 21. doi: 10.1016/j.bcab.2019.101303

Scopus Metric Year: 2019 | Category: Agronomy and Crop Science | CiteScore: 2.8 | Highest Percentile: 71 | Rank: #/N: 97/334 | SNIP: 0.983 | SJR: 0.506 Author Role:

Dr. Kristine Urschel provided expertise in the amino acid analysis portion of the study, including sample analysis, data interpretation and providing feedback on relevant portions of the manuscript.

Teets: Assisted with data analysis and manuscript preparation

+ Latham, C. M., Wagner, A. L., \* ~ Urschel, K. L. (2019). Effects of dietary amino acid supplementation on measures of whole-body and muscle protein metabolism in aged horses., *Journal of animal physiology and animal nutrition*, 103(1), 283-294. doi: 10.1111/jpn.12992

WOS Metric Year: 2019 | Category:Agriculture, Dairy and Animal Science | JIF: 1.597 | Rank by JIF: 25/63 | TC: 3455 | Rank by TC: 16/43

Author Role:Christine Latham was the MS student that had the major responsibility for all sample collection, sample analysis, statistical analysis, data interpretation and manuscript preparation.

Dr. Ashley Wagner was an industry collaborator that assisted with study design, data interpretation and manuscript preparation.

Dr. Kristine Urschel provided expertise in study design, data interpretation and assistance with manuscript preparation. She mentored the primary author in all aspects of the study.

+ Mok, C. H., Levesque, C. L., \* ~ Urschel, K. L. (2018). Using the indicator amio acid oxidation technique to study threonine requirements in horses receiving a predominantly forage diet, *Journal of Animal Physiology and Animal Nutrition*, 102(5), 1266-1381. doi: 10.1111/jpn.12927

WOS Metric Year: 2018 | Category: Agriculture, Dairy and Animal Science | JIF: 1.703 | Rank by JIF: 15/61 | TC: 3041 | Rank by TC: 17/61

Author Role:Chan Hee Mok was the MS student that had the major responsibility for all sample collection, sample analysis, statistical analysis, data interpretation and manuscript preparation.

Dr. Crystal Levesque is an external collaborator that provided expertise in statistical analyses.

Dr. Kristine Urschel provided expertise in study design, data interpretation and assistance with manuscript preparation. She mentored the primary author in all aspects of the study.

#### **Review**, Journal

- \* ~ Urschel, K. L., McKenzie, E. C. (2021). Nutritional Influences on Skeletal Muscle and Muscular Disease, *Veterinary Clinics of North America Equine Practice*, 37(1), 139-175. doi: 10.1016/j.cveq.2020.12.005
  WOS Metric Year: 2020 | Category:Veterinary Science | JIF: 1.792 | Rank by JIF: 52/146 | TC: 1721 | Rank by TC: 58/167
  Scopus Metric Year: 2020 | Category: Equine | CiteScore: 2 | Highest Percentile: 64 | Rank: #/N: 3/7 | SNIP: 1.381 | SJR: 0.574
  Author Role:Dr. Urschel was the primary author in charge of the preparation of this review paper and authored the first half of the paper.
- + Mok, C. H., \* ~ Urschel, K. L. (2020). Amino acid requirements in horses, Asian-Australasian Journal of Animal Sciences, 33(5), 679-695. doi: 10.5713/ajas.20.0050
   WOS Metric Year: 2019 | Category:Agriculture, Dairy and Animal Science | JIF: 1.664 | Rank by JIF: 21/63 | TC: 5861 | Rank by TC: 10/63

Author Role: Chan Hee Mok was the primary author of this review paper, which was based on the literature review of her MS thesis.

Dr. Kristine Urschel contributed her expertise of the subject matter and worked with the primary author on all aspects of the review paper preparation.

#### **Sponsored Projects**

#### Not Funded

Urschel K., L., Effect of protein intake on the activation of muscle protein synthesis in horses, Sponsored by American Quarter Horse Foundation Submitted: October 31, 2017.Requested: \$53,980.00, | Awarded: \$0.00

Description: The proposed objective was to determine the effect of horse age and meal protein content on the activation of the pathways associated with muscle protein synthesis. The hypothesis was that in older horses, a greater amount of protein intake would be necessary to maximally stimulate muscle protein synthesis. OSPA ID: 201710310841

- Urschel K., L., Effects of Graded Levels of Protein Intake on mTOR Signaling and Muscle Protein Fractional Synthesis Rates in Horses, Sponsored by American Quarter Horse Foundation Submitted: October 26, 2019. | Awarded: \$0.00 OSPA ID: 201910260907
- Farrell A., Adams A., A., Adedeji A., A., Adedokun S., A., Howe D., K., Jones K., R., Perry S., E., Tanaka K., Urschel K., L., Vaillancourt L., J., Zimmerman J., N., ITEST Exploratory: Agriculture STEM Mentorships for Underrepresented High School Students, Sponsored by National Science Foundation Submitted: August 12, 2018.Requested: \$400,000.00, | Awarded: \$0.00 OSPA ID: 201808121527

#### **Scope Grants**

#### Closed

Urschel K., L., Coleman R., J., ARS/SCA: Improving dietary protein quality in forage fed horses, Sponsored by Agricultural Research Service Submitted: July 12, 2013. Funding Dates: July 1, 2013 - April 30, 2018. | Current Budget Amount: \$126,457.00

Prime Grant OSPA ID: 201305081534

Urschel K., L., Coleman R., J., Dorsch S., ARS/SCA: Improving dietary protein quality in forage fed horses, Sponsored by Agricultural Research Service Submitted: February 5, 2016. Funding Dates: May 1, 2013 - April 30, 2018.Requested: \$70,223.00, | Current Budget Amount: \$70,223.00

Description: Investigating the effects of forage type and protein or amino acid supplementation on whole-body protein synthesis in growing and mature horses. Both Dr. Urschel and Dr. Coleman contributed to study design and the studies were carried out by graduate student Sophie Dorsch.

Prime Grant OSPA ID: 201602041500

## **Non-Sponsored Projects**

Federal

# Hatch

### Closed

Urschel, K. L., Regulating the signaling pathways that determine skeletal muscle mass, (April 9, 2015 - September 30, 2019).

Description: Determining how the signaling pathways associated with muscle protein synthesis and degradation can be influenced by various factors, including diet and metabolic status. I am the Principal Investigator and oversee all research and graduate student supervision.

# On-going

Urschel, K. L., Regulating the mTOR signaling pathway in equine skeletal muscle, (October 1, 2019 - September 30, 2024).

Description: Determining how the signaling pathways associated with muscle protein synthesis and degradation can be influenced by various factors, including diet and metabolic status. I am the Principal Investigator and oversee all research and graduate student supervision.

# Industrial/Trade

# On-going

Urschel, K. L. (Principal), Loos, C. M.M. (PostDoct Student), Equine nutrition program support, Cavalor Equine Nutrition (in partnership with Versele Laga), (January 1, 2021 - December 31, 2022). Awarded: \$85725.

Description: Support of Caroline Loo's post-doctoral research program. Includes \$85,725 for salary costs.

- McLeod, K. R. (Principal), Loos, C. M.M. (Co-Principal), Urschel, K. L. (Co-Principal), Insulin metabolism and metabolomics in obese horses with insulin dysregulation, Versele-Laga, (July 2, 2020 December 2021). Awarded: \$62630.
   Description: Research gift
- Urschel, K. L., Loos, C. M. (PostDoct Student), Equine Nutrition Program Support, Cavalor Equine Nutrition (in partnership with Versele Laga), (January 1, 2019 - December 31, 2020). Awarded: \$131984.

Description: Support of Caroline Loo's post-doctoral research program. Includes \$111,984 for salary costs and \$20,000 for research costs (Effects of Insulin dysregulation and protein source on muscle protein metabolism).

Urschel, K. L., Loos, C. M. (PostDoct Student), Equine Nutrition Program Support, Cavalor Equine Nutrition (in partnership with Versele Laga), (November 1, 2018 - December 31, 2018). Awarded: \$36340.

Description: Support of Caroline Loo's post-doctoral research program. Includes \$16,340 for salary costs and \$20,000 for research costs (Effects of Insulin dysregulation and protein source on muscle protein metabolism).

# Other

# On-going

Urschel, K. L., Amino acid analysis laboratory (income account), Researchers from other

Universities, (January 1, 2021 - December 31, 2022). Awarded: \$2090. Description: Analysis of plasma and feed samples for amino acid composition.

- Urschel, K. L., Amino acid analysis laboratory (income account), Researchers from other
   Universities, (January 1, 2019 December 31, 2020). Awarded: \$4965.
   Description: Analysis of feed and plasma samples for amino acid concentrations using HPLC methodologies.
- Urschel, K. L., Loos, C. M. (PostDoct Student), Equine Nutrition Program Support, Cavalor Equine Nutrition (in partnership with Versele Laga), (April 2018 - October 15, 2018). Awarded: \$44028.

Description: Gift funds used to support the post-doctoral training of Dr. Caroline Loos, under the supervision of Dr. Kristine Urschel.

Urschel, K. L., Amino Acid Analysis Laboratory, Researchers from other Universities, (November 1, 2016 - October 15, 2018). Awarded: \$5695.

Description: Analysis of feed and plasma samples for amino acid concentrations using HPLC methodologies.

#### University

#### Not Funded

Urschel, K. L. (Principal), Waters Alliance e2695 Separations Module and Empower Software., University of Kentucky Vice President for Research 2019 Equipment Competition. Awarded: \$40135.

Description: Purchase of a new high performance liquid chromatography system and accompanying software with the intended use of amino acid analysis.

Urschel, K. L. (Principal), Development of an isotopic technique to study rates of skeletal muscle protein synthesis in horses, University of Kentucky Research Support Grants. Awarded: \$19985.

Description: This study proposed to develop a method that could be used to measure the rates of isotope incorporation into muscle protein as a way to measure muscle protein synthesis. This method is extensively used in human research, but methods do not currently exist for use in the horse.

#### **Presentations Given**

#### **Invited Speaker**

- Urschel K. L., (November 18, 2021). Protein nutrition in horses: What we've learned and where we're going Department of Veterinary Science Seminar, University of Kentucky Department of Veterinary Science, United States. Invited, University.
- Urschel K. L., (November 17, 2021). Protein Nutrition in Horses Virtual presentation to nutritionists and sales team, Madbarn, United States. Invited, International.
- Urschel K. L., (July 16, 2021). Recent advances in protein nutrition in horses 2021 ASAS-CSAS-SSASAS Annual Meeting, American Society of Animal Science, Louisville, KY, United States. Invited, International.

- Urschel K. L., (January 19, 2021). Amino acids and protein synthesis in the growing horse University of Kentucky Equine Showcase, University of Kentucky Equine Programs, Lexington (delivered remotely), KY, United States. Invited, Regional.
- Urschel K. L., (November 7, 2020). To Supplement or not to Supplement... What do you Need to Know? Northern Kentucky Equine Conference, Northern Kentucky Horse Network, KY, United States. Invited, Regional.
- Urschel K. L., (November 10, 2018). Feeding the Cushings Horse Northern Kentucky Equine Conference, Northern Kentucky Horse Network, Burlington, KY, United States. Invited, State.
- Urschel K. L., (October 30, 2018). Where we've been and where we're going: Understanding protein nutrition in horses Kentucky Equine Research Conference 2018, Kentucky Equine Research, Lexington, KY, United States. International.
- Urschel K., (April 25, 2018). Muscle power: the role of amino acids Vetoquinol Sales Representative Meeting, Vetoquinol, Lexington, KY. Invited, International.
- Urschel K., (September 28, 2017). Feeding the older horse with PPID and/or insulin resistance 100th University of Kentucky Department of Veterinary Science Equine Diagnostic and Research Seminar Series, University of Kentucky Department of Veterinary Sciences, Lexington, KY, United States. Invited, State.

#### **Podium Session**

- Hauss A., Loos C., Gerritsen A., Urschel K. L., Pagan J., (June 2, 2021). Effect of branched-chain amino acid and N-acetylcysteine supplementation post-exercise on muscle mTOR signaling in exercising horses. *Journal of Equine Veterinary Science*, 100: 103524 (10.1016/j.jevs.2021.103524). 2021
   Equine Science Society meeting, Equine Science Society, Virtual meeting. Accepted, International.
- Wilson K. M., Robin S. C., Coleman R. J., Urschel K. L., Rossano M. G., Heleski C. R., (May 25, 2021). Using assessment and curriculum mapping to enhance your undergraduate programming efforts 2021 National Association of Equine Affiliated Academics Annual meeting, National Association of Equine Affiliated Academics, Virtual meeting. Accepted, National.
- Loos C. M.M., Dorsch S. C., Gerritsen A., Elzinga S. E., Brewster-Barnes T., Adams A. A., Urschel K. L., (February 16, 2019). Consumption of a high protein meal affects insulin responses in horses with insulin dysregulation. 9th European Equine Health and Nutrition Congress, Utrecht, Netherlands. Accepted, International.
- Dorsch S. C., Brewster-Barnes T., Hannan A. M., Harrell C. E., Loos C. M., Urschel K. L., (May 31, 2017). Effects of alfalfa hay cubes versus timothy hay cubes on measures of whole-body protein metabolism in mature horses Equine Science Society Meeting, Equine Science Society, Minneapolis, MN, United States. Accepted, National.
- Loos C. M., Brewster-Barnes T., Dorsch S. C., Urschel K. L., (May 31, 2017). Effects of short-term dexamethasone treatment on glucose and insulin dynamics and insulin signaling in horses. Journal of Equine Veterinary Science, 52: 49-50, 2017. Equine Science Society Meeting, Equine Science Society, Minneapolis, MN, United States. Accepted, National.

#### **Poster Session**

- Loos C. M.M., Vanzant E. S., Li L., Han W., Zhao S., Bohannan D., Urschel K. L., McLeod K. R., (September 2021). Impact of essential oils on insulin sensitivity and the metabolome of insulin dysregulated horses. Annual meeting of the European Federation of Animal Science (EAAP), European Federation of Animal Science (EAAP), Davos, Switzerland. Accepted, International.
- Loos M.M., McLeod K. R., Stratton S. C., van Doorn D. A., Kalmar I., Urschel K. L., (September 2021). Dose-dependent activation of muscle protein synthetic pathways in response to intake of graded

levels of protein supplement in mature horses Annual meeting of the European Society of Veterinary and Comparative Nutrition (virtual meeting), European Society of Veterinary and Comparative Nutrition, Vila Real, Portugal. Accepted, International.

- Loos C. M.M., Vanzant E. S., Bohannan A. D., Urschel K. L., Klotz J. L., McLeod K. R., (September 2021). Impact of ergot alkaloid on insulin sensitivity in normal and insulin dysregulated horses. Annual meeting of the European Society of Veterinary and Comparative Nutrition (Virtual meeting), European Society of Veterinary and Comparative Nutrition, Vila Real, Portugal. Accepted, International.
- Loos C. M.M., Dorsch S. C., Gerritsen A. M., Urschel K. L., McLeod K. R., (August 26, 2019). High protein intake does not increase activation of mTOR compared to low protein intake in horses The 70th EAAP Annual Meeting in Ghent, European Association of Animal Science, Ghent, Belgium. Accepted, International.
- Stratton S., Gerritsen A., Loos C., Urschel K. L., (June 4, 2019). Effect of forage type and ration balancer protein content on measures of whole-body protein metabolism in growing horses consuming a predominantly forage diet. Journal of Equine Veterinary Science, 76: 76, 2019. 2019 Equine Science Society meeting, Equine Science Society, Asheville, NC, United States. Accepted, International.
- Loos C., Dorsch S., Gerritsen A., Urschel K. L., (June 4, 2019). Effects of dietary protein level of muscle protein signaling pathways in horses. Journal of Equine Veterinary Science, 76: 72-73, 2019. 2019 Equine Science Society meeting, Equine Science Society, Asheville, NC, United States. Accepted, International.
- Loos C., Dorsch S., Elzinga S., Barnes T., Adams A. A., Urschel K. L., (July 11, 2018). A high protein meal affects plasma insulin concentrations and amino acid metabolism in horses with equine metabolic syndrome. Abstract #PSXVI-5, 2018. 2018 ASAS-CSAS Annual Meeting, American Society of Animal Science and Canadian Society of Animal Science, Vancouver, Canada. Accepted, International.
- Loos C., Dorsch S., Gerritsen A., Barnes T., Urschel K. L., (July 11, 2018). Effects of short-term dexamethasone administration on glucose and insulin dynamics and muscle protein signaling in horses after the consumption of a high protein meal. Abstract #PSXIII-10, 2018. 2018 ASAS-CSAS Annual Meeting, American Society of Animal Science and Canadian Society of Animal Science, Vancouver, Canada. Accepted, International.

# Teaching

# Teaching

Prefix Number - Section	Credit Hours	# Enrolled	Code Term Year
ASC 325 - 001	3.00000 - 3.00000	39	10 Fall 2021-2022
ASC 325 - 010	3.00000 - 3.00000	16	50 Summer 2020-2021
ASC 325 - 201	3.00000 - 3.00000	20	30 Spring 2020-2021
ASC 325 - 202	3.00000 - 3.00000	19	30 Spring 2020-2021
ASC 690 - 001	2.00000 - 2.00000	4	30 Spring 2020-2021
ASC 325 - 001	3.00000 - 3.00000	23	10 Fall 2020-2021
ASC 325 - 002	3.00000 - 3.00000	17	10 Fall 2020-2021

ASC 325 - 010	3.00000 - 3.00000	8	50 Summer 2019-2020
ASC 325 - 001	3.00000 - 3.00000	31	30 Spring 2019-2020
ASC 395 - 018	1.00000 - 4.00000	2	30 Spring 2019-2020
HON 395 - 004	1.00000 - 6.00000	1	30 Spring 2019-2020
HON 398 - 027	3.00000 - 15.00000	1	30 Spring 2019-2020
ASC 325 - 001	3.00000 - 3.00000	87	10 Fall 2019-2020
ASC 395 - 014	1.00000 - 4.00000	16	10 Fall 2019-2020
HON 395 - 008	1.00000 - 6.00000	1	10 Fall 2019-2020
ASC 395 - 018	1.00000 - 4.00000	1	30 Spring 2018-2019
ASC 325 - 001	3.00000 - 3.00000	66	10 Fall 2018-2019
ASC 205 - 001	1.00000 - 1.00000	46	30 Spring 2017-2018
ASC 325 - 001	3.00000 - 3.00000	33	30 Spring 2017-2018
ASC 395 - 007	1.00000 - 4.00000	1	30 Spring 2017-2018
ASC 767 - 020	2.00000 - 2.00000	1	30 Spring 2017-2018
ASC 325 - 001	3.00000 - 3.00000	70	10 Fall 2017-2018
ASC 767 - 018	2.00000 - 2.00000	1	10 Fall 2017-2018
ASC 782 - 007	1.00000 - 4.00000	1	10 Fall 2017-2018
ASC 325 - 001	3.00000 - 3.00000	36	30 Spring 2016-2017
ASC 395 - 007	1.00000 - 4.00000	6	30 Spring 2016-2017
ASC 690 - 001	2.00000 - 2.00000	6	30 Spring 2016-2017
ASC 767 - 020	2.00000 - 2.00000	1	30 Spring 2016-2017
ASC 782 - 001	1.00000 - 4.00000	1	30 Spring 2016-2017

## **Teacher Course Evaluations**

Prefix Number - Section	Responses	TCE Course	TCE Teaching	Code Term Year
		Quality Mean	Quality Mean	
ASC 205 - 001	21	3.81	4.33	30 Spring
				2017-2018
ASC 325 - 001	9	4.44	4.56	10 Fall 2020-2021
ASC 325 - 001	11	4.18	4.36	30 Spring
				2019-2020
ASC 325 - 001	39	4.62	4.64	10 Fall 2019-2020
ASC 325 - 001	30	4.40	4.47	10 Fall 2018-2019
ASC 325 - 001	13	4.85	4.85	30 Spring
				2017-2018
ASC 325 - 001	37	4.65	4.75	10 Fall 2017-2018
ASC 325 - 001	16	4.75	4.88	30 Spring
				2016-2017
ASC 325 - 002	6	4.50	4.83	10 Fall 2020-2021
ASC 325 - 201	6	4.17	4.67	30 Spring
				2020-2021
ASC 325 - 202	5	4.80	4.80	30 Spring
				2020-2021

Note: With regards to 2020 TCEs please consider the following from page 121 of the UK Playbook for Fall 2020, "It is essential that performance evaluation take into account the extenuating circumstances brought about by the disruption for faculty in all title series and the extraordinary work accomplished by faculty in response to the disruption. Academic leaders shall reiterate that TCEs should be but one indicator of effective teaching in both periodic merit reviews and tenure/promotion decisions. Evaluation of teaching must go beyond student evaluations alone."

## **Theses and Dissertations**

#### **Dissertation Committee Chair**

Caroline Loos, PhD, "The impact of insulin dysregulation on protein metabolism in horses," Status: Degree Awarded, PhD student under my primary supervision at the University of Kentucky. (August 2013 - February 2018).

#### **Dissertation Committee Member**

- Erica Jacquay, PhD, Status: In-Process, PhD student in the Department of Veterinary Science at the University of Kentucky. (2021 Present).
- Lauren Brigzys, PhD (Department of Animal Sciences, Purdue University), Status: In-Process. (January 2021 Present).
- Erica Macon, PhD, "Effects of season and nutrition on insulinemic responses in insulin dysregulated horses," Status: In-Process, PhD student in the Department of Veterinary Science at the University of Kentucky. (2018 November 22, 2021).
- Alisa Herbst, PhD, "Muscle mass and immune function in the senior horse," Status: Completed, PhD student in the Department of Veterinary Science at the University of Kentucky. (2018 -November 16, 2021).
- Opeyemi Olojede, Animal and Food Sciences, "The role of feed additives in mitigating the effect of stressors on growth, digestibility, intestinal morphology, permeability, and immune response in poultry," Status: Completed. (2017 - July 2020).
- Lauren Nolan, PhD, "Evaluation of current and emerging techniques for measuring eggshell integrity of the domestic fowl," Status: Degree Awarded, PhD student in the Department of Animal and Food Sciences at the University of Kentucky. (2017 2019).
- Ashton Miller, PhD, "Effect of pituitary pars intermedia dysfunction and Pracend(R) treatment on endocrine and immune function in senior horses," Status: Degree Awarded, PhD student in the Department of Veterinary Science at the University of Kentucky. (2016 - 2019).
- Dylan Klein, PhD, Status: Degree Awarded, PhD student in the Department of Animal Sciences at Rutgers University. (2015 2018).
- Ning Lu, PhD, "Long-term effects of dietary copper sources and levels on performance and health of sows and piglets," Status: Degree Awarded, PhD student in the Department of Animal and Food Sciences at the University of Kentucky. (2015 2017).

Melissa Siard, PhD, "Lymphocyte-mediated inflamm-aging in the horse," Status: Degree Awarded, PhD student in the Department of Veterinary Science at the University of Kentucky. (2013 - 2017).

#### **Master's Thesis Committee Chair**

- Ashlee Hauss, MS, Status: In-Process, MS student under my primary supervision at the University of Kentucky. (August 2017 Present).
- Sophie Dorsch, MS, "Whole-body protein metabolism in growing and mature horses receiving predominantly forage diets," Status: Degree Awarded, MS student under my primary supervision at the University of Kentucky, Expected Completion Date: November 15, 2018. (August 2016 November 15, 2018).

#### **Master's Thesis Committee Member**

- Ashley Starrett, MS (Department of Agricultural Sciences, Sam Houston State University), "The effect of dental floating on nutrient digestion in non-pregnant Quarter Horse mares," Status: Completed. (June 30, 2021).
- Taylor Ferguson, Animal and Food Science, "Impact of ergot alkaloid and estradiol 17B on whole-body protein turnover and expression of mTOR pathway protein in muscle of cattle," Status: Completed. (October 30, 2020).
- Jenna Guinn, MS, "Comparing dairy farm heat stress abatement strategies and farm performance in the United States using summer to winter ratios," Status: Degree Awarded, MS student in the Department of Animal and Food Sciences at the University of Kentucky. (2017 - 2018).

#### **Outside examiner**

- Jasmin Bagge, PhD, "Donor age effects on the proliferative and chondrogenic/osteogenic differentiation performance of equine bone marrow and adipose tissue derived mesenchymal stem cells in culture," Status: Completed. (December 16, 2019).
- Saranajith Dunuwille, PhD, "Comparison of the pro-inflammatory gene modulation in equine endothelial cells by equid herpesvirus-1, equid herpesvirus-4 and the equine arteritis virus," Status: Completed. (August 30, 2019).
- Sarah Elzinga, PhD, "Inflammation and insulin dysregulation in the horse," Status: Degree Awarded, PhD student in the Department of Veterinary Science at the University of Kentucky. (May 16, 2017).

#### **Directed Student Learning (excluding theses, dissertations)**

Caroline Loos. Postdoctoral Supervision. *Equine nutrition and metabolism*. In-Process (May 2018 - Present).

Description: Dr. Caroline Loos is a Post-Doctoral Scholar working under my primary supervision. She is conducting equine nutrition research funded by Cavalor Equine Nutrition.

- Amelia Bolin. Directed Individual/Independent Study. . Completed (January 2020 May 2020). Description: Mentored an independent research study involving the analysis of equine plasma samples for amino acid concentrations. This semester involved compiling all of the data, data interpretation and preparation of a final research report.
- Sydney Prince. Directed Individual/Independent Study. . Completed (January 2020 May 2020). Description: Mentored a student for her Honors Capstone project. This project involved analyzing equine muscle samples for amino acid concentrations. Sydney prepared all of the samples for analysis, but unfortunately was not able to complete the analysis procedures prior to a move to remote learning. Therefore, she complete a literature review and recorded a final presentation on her research topic.
- Amelia Bolin. Directed Individual/Independent Study. . Completed (August 2019 December 2019).

Description: Mentored an independent research study involving the analysis of equine plasma samples for amino acid concentrations. This semester involved writing a literature review and preparing and analyzing the samples.

Courtney Gilreath. Directed Individual/Independent Study. *Lab methods in equine nutrition and physiology*. Completed (January 2019 - May 2019).

Description: 3 credit independent study course (ASC 395) where the student learned a variety of laboratory techniques including HPLC analysis, Western blot and plasma glucose measurement.

Giovanna Panepinto. Mentor. Effect of Protein in the Diet on mTOR and Skeletal Muscle in Mature Thoroughbred Mares. (January 2018 - May 2019).

Description: Research mentor for a student completing ABT 395. Student helped with animal care, sample collection, analyzed samples via Western blot and statistically analyzed and presented the data.

Garrett Morgan. Directed Individual/Independent Study. *Lab methods in equine nutrition and physiology*. Completed (January 2018 - May 2018).

Description: 1 credit independent study course (ASC 395) where the student learned a variety of laboratory techniques including HPLC analysis and plasma glucose measurement.

- Cameron Compton. Mentor. Effect of Protein Level in Two Ration Balancers on Plasma Urea Nitrogen Concentrations. Completed (January 2018 - May 2018).
   Description: Worked with a high school senior from Carter G. Woodson Academy as a part of the College of Agriculture, Food and Environment High School Mentoring Program.
   Cameron worked in my lab to conduct research and prepare a poster for the 2018 Minorities in Agriculture, Natural Resources and Related Sciences National Conference.
  - Cameron was in my lab 2-3 days a week for 2 hours each day.
- Augusta Hosmer. Directed Individual/Independent Study. Horse care and sampling procedures in equine nutrition and physiology research. Completed (January 2017 May 2017).
   Description: 3 credit independent study course (ASC 395) where the student assisted on an equine nutrition research study and learned a variety of techniques including jugular vein catheterization, blood and breath sampling, isotope solution preparation and the care and management of research horses.
- Courtney Gilreath. Directed Individual/Independent Study. *Lab methods in equine nutrition and physiology*. Completed (January 2017 May 2017).

Description: 3 credit independent study course (ASC 395) where the student learned a variety of laboratory techniques including HPLC analysis and plasma glucose measurement.

- Danielle Morrison. Directed Individual/Independent Study. *Horse care and sampling procedures in equine nutrition and physiology research*. Completed (January 2017 May 2017). Description: 3 credit independent study course (ASC 395) where the student assisted on an equine nutrition research study and learned a variety of techniques including jugular vein catheterization, blood and breath sampling, isotope solution preparation and the care and management of research horses.
- Lindsay Rice. Directed Individual/Independent Study. *Horse care and sampling procedures in equine nutrition and physiology research*. Completed (January 2017 May 2017). Description: 3 credit independent study course (ASC 395) where the student assisted on an equine nutrition research study and learned a variety of techniques including jugular vein catheterization, blood and breath sampling, isotope solution preparation and the care and management of research horses.
- Shelby Wells. Directed Individual/Independent Study. *Lab methods in equine nutrition and physiology*. Completed (January 2017 May 2017).

Description: 3 credit independent study course (ASC 395) where the student learned a variety of laboratory techniques including HPLC analysis and plasma glucose measurement.

Summer Nilsen. Directed Individual/Independent Study. *Horse care and sampling procedures in equine nutrition and physiology research*. Completed (January 2017 - May 2017). Description: 3 credit independent study course (ASC 395) where the student assisted on an equine nutrition research study and learned a variety of techniques including jugular vein catheterization, blood and breath sampling, isotope solution preparation and the care and management of research horses.

#### Academic Advising

30 Spring 2021-2022, 44 undergraduate students advised.

10 Fall 2021-2022, 49 undergraduate students advised.

50 Summer 2020-2021, Student Awards:

- Ashlee Hauss (MS Student): 3rd Place, Equine Science Society Graduate Student Oral Presentation Competition (Nutrition section).

- 30 Spring 2020-2021, 39 undergraduate students advised.
- 10 Fall 2020-2021, 48 undergraduate students advised, 1 graduate student advised.

30 Spring 2019-2020, 65 undergraduate students advised, 1 graduate student advised.

10 Fall 2019-2020, 63 undergraduate students advised, 1 graduate student advised.

30 Spring 2018-2019, Student Awards:

- Caroline Loos (former PhD Student): Winner, European Equine Health and Nutrition Congress Free Communication Award.

30 Spring 2018-2019, 34 undergraduate students advised, 1 graduate student advised.

10 Fall 2018-2019, 42 undergraduate students advised, 2 graduate student advised.

50 Summer 2017-2018, Student Awards:

- Ashlee Hauss (MS Student): 2nd Place, Animal and Food Sciences Graduate Association Poster Competition Proposal Category.

30 Spring 2017-2018, 58 undergraduate students advised.

10 Fall 2017-2018, Student Awards:

- Caroline Loos (PhD Student): 3rd Place, Animal and Food Sciences Graduate Association Three Minute Thesis Competition.

10 Fall 2017-2018, 37 undergraduate students advised.

50 Summer 2016-2017, Student Awards:

- Caroline Loos (PhD Student): 1st Place, Animal and Food Sciences Graduate Association Poster Competition PhD Category
- Sophie Dorsch (MS Student): 2nd Place, Animal and Food Sciences Graduate Association Poster Competition MS Category
- Caroline Loos (PhD Student): 1st Place, Equine Science Society Equine Biosciences Graduate Student Competition (Oral Presentation).

30 Spring 2016-2017, 36 undergraduate students advised.

# **Program and Curriculum Development**

2017

Program/Curriculum Name - Education Abroad trip to France (for May 2018)

Description: Worked with individuals at Agro Sup Dijon in France to arrange a 14 day abroad experience in France. I also submitted the paperwork to the Education Abroad office to get the program approved and helped with the development of the EQM syllabus for the Spring 2018 class corresponding to the trip abroad.

Program/Curriculum Name - Equine Science and Management

Description: As Chair of the Equine Science and Management Curriculum Committee, I worked alongside the Academic Coordinator to lead the efforts for a curriculum revision. This involved getting input from other equine faculty through a variety of working sessions during the summer and then working with the cooperating departments (Animal and Food Sciences, Veterinary Science, Plant and Soil Sciences and Community and Leadership Development) to get their approval for our revised curriculum. The formal curriculum change was submitted in Fall 2017 and officially approved in Spring 2018.

#### 2019

Program/Curriculum Name - Equine Science and Management minor curriculum change Description: Worked with the Program Academic Coordinator to submit a curriculum revision that included the addition of a new course to major requirements and other additional courses under emphasis area topics.

#### 2020

Program/Curriculum Name - Animal Science

Description: Submitted a major course change proposal for ASC 325 (Animal Physiology) to add a distance learning option for this course.

Program/Curriculum Name - Equine Science and Management

Description: Worked with the ESMA Curriculum Committee to develop a new course, EQM 395, Special Topics in Equine Science and Management. In addition to the new course, minor course changes (updated pre-requisites) were also submitted for EQM 210 and EQM 305. A major course change proposal was submitted to add a distance learning option to EQM 399.

#### **Other Credit and Non-Credit Instructional Activities**

#### Faculty advisor for student organization

Participants: Graduate Students, 30,

Description: Provide guidance to the Departmental graduate student organization and assist with professional development activities.

Participants: Undergraduate Students, 10, (May 2020)

Description: Provide guidance to the undergraduate student organization with an interest in equine interest, in particular helping them identify potential speakers, tours and assist with professional development activities. This club was disbanded following the Spring 2020 semester, because most interested students were participating directly with research laboratories rather than participating in a student organization and so membership was no longer sustainable.

# Service

# **Department Service**

#### **Committee Member**

Animal and Food Sciences Curriculum Committee, (September 2017 - Present).

Animal and Food Sciences Recognitions and Awards Committee, (August 2016 - December 2019).

Animal and Food Sciences Scholarship Committee, (September 2018 - September 2019). Judge

Animal and Food Sciences Graduate Association Poster Symposium, (May 31, 2019).

Animal and Food Sciences Graduate Association 3 minute thesis competition, (October 10, 2018).

# **College Service**

#### **Committee Chair**

Equine Science and Management Curriculum Committee, (May 2017 - Present). Committee Member

College of Agriculture, Food and Environment, Curriculum Committee, (August 2020 - Present).

College of Agriculture, Food and Environment Promotion and Tenure Committee, (October 1, 2019 - Present).

Equine Science and Management Assessment Committee, (November 2018 - Present).

- College of Agriculture, Food and Environment Curriculum Committee, (August 2017 May 2019).
- Search Committee for the UK Ag Equine Programs Internship Coordinator, (September 2017 February 2018).
- Steering Committee for the Individualized Program in Sustainable Agriculture, (December 2013 May 2017).
- College of Agriculture, Food and Environment Faculty Council, (April 2015 April 2017).
- College of Agriculture, Food and Environment Current and Transfer Student Scholarships Reviewer, (March 2021).
- College of Agriculture, Food and Environment Current and Transfer Student Scholarships Reviewer, (February 2020).
- College of Agriculture, Food and Environment Freshmen Scholarship Reviewer, (December 2019).

- College of Agriculture, Food and Environment Current and Transfer Student Scholarships Reviewer, (April 2019).
- Coordinated a day long visit for a group of 15 visiting students and faculty from the University of Guelph to learn about equine teaching, research and extension at the University of Kentucky, (April 29, 2019).
- College of Agriculture, Food and Environment Current and Transfer Student Scholarships Reviewer, (April 2018).
- College of Agriculture, Food and Environment Current and Transfer Student Scholarships Reviewer, (April 2017).

Hatch project proposal reviewer, (April 2017).

## **University Service**

#### **Committee Member**

University of Kentucky Undergraduate Council, (August 15, 2021 - Present).

University of Kentucky Senate Academic Advising Committee, (September 2017 - August 2020).

Academic Advising Dual Report Workgroup, (June 2020).

#### Grant Proposal Reviewer, Internal

University of Kentucky 2018 Undergraduate Summer Research and Creativity Grants, (April 2018).

#### **Campaign caller**

Caller for the Student and Academic Life calling campaign regarding the COVID-19 transition, (April 2020).

## **University Senator**

University of Kentucky Faculty Senate, (August 2017 - August 2020).

# **Professional Service**

#### Chairperson

Equine Science Society Nutrition Committee Chair, (June 2020 - Present). Committee Member

Equine Science Society, Nutrition Section, (June 2016 - Present). Conference-Related

Equine Science Society, Nutrition section meeting Chair, (June 2, 2021 - June 3, 2021). Editor, Associate Editor

Journal of Animal Science- Companion Animal and Equine sections, (July 1, 2019 - Present).

#### **Editorial Review Board Member**

Domestic Animal Endocrinology, Domestic Animal Endocrinology, (January 2015 - Present).

Journal of Animal Science, (July 2018 - June 2019).

Journal of Animal Science, (2009 - 2017).

#### Member

Equine Science Society Awards Committee, (December 2021 - Present). Mentor

Equine Science Society, Professional mentor for the student professional development workshop about elevator pitches, (June 2019).

2018 Bio-Serv Award in Experimental Animal Nutrition, (November 2017).

Equine Science Society Undergraduate Student Competition, (May 31, 2017). **Program Organizer** 

Equine Science Society, Organized a virtual networking session for graduate students in the Equine Science Society, (August 3, 2020).

#### Reviewer, Abstract

Equine Science Society, Nutrition section abstract review, (February 2019).

Equine Science Society, Nutrition section- Reviewed 18 abstracts., (February 2017). Reviewer, Conference Paper

Equine Science Society; reviewer of 15 abstracts for annual meeting, Abstract review for the 2021 ESS meeting, (February 2021).

#### **Reviewer, Grant Proposal**

- USDA NIFA, Animal Health and Production and Animal Products: Improved Nutritional Performance, Growth, and Lactation of Animals, (September 2019).
- Natural Sciences and Engineering Research Council of Canada, Discovery Grants Program, (January 2019).
- Review of Hatch project proposals- Reviewed 3 (2017-1; 2018-2) Hatch project proposals for faculty in the Department of Veterinary Sciences, (2017 2018).

Diverse Field Crops Cluster- Camelina section for Agriculture and Agri-Food Canada, (October 2017).

National Sciences and Engineering Research Council of Canada Discovery Grant, (January 2017). Reviewer, Journal Article

Comparative Exercise Physiology- Reviewer of 2 manuscripts, Comparative Exercise Physiology, (January 1, 2021 - December 31, 2022).

- Domestic Animal Endocrinology- reviewer of 3 manuscripts, (January 1, 2021 December 31, 2022).
- Journal of Equine Veterinary Science- reviewer of 1 manuscript, (January 1, 2021 December 31, 2022).
- Journal of Nutrition- reviewer of 1 manuscript, (January 1, 2021 December 31, 2022).
- Amino Acids- reviewed 1 manuscript, (January 1, 2019 December 31, 2020).
- Animals- reviewed 2 manuscripts, (January 1, 2019 December 31, 2020).
- Comparative Exercise Physiology- reviewed 2 manuscripts, (January 1, 2019 December 31, 2020).
- Domestic Animal Endocrinology- reviewed 1 manuscript, (January 1, 2019 December 31, 2020).
- Equine Veterinary Journal- reviewed 1 manuscript, (January 1, 2019 December 31, 2020).
- Journal of Animal Science- Reviewed 8 manuscripts, (January 1, 2019 December 31, 2020).
- Journal of Equine Veterinary Science- reviewed 1 manuscript, (January 1, 2019 December 31, 2020).
- Journal of Nutrition- reviewed 2 manuscripts, (January 1, 2019 December 31, 2020).
- Nutrients- reviewed two manuscripts, (January 1, 2019 December 2020).
- The Veterinary Journal- reviewed 1 manuscript, (January 1, 2019 December 31, 2020).
- Comparative Exercise Physiology- reviewed 2 manuscripts, (October 15, 2018 December 31, 2018).
- Current Developments in Nutrition- reviewed 1 manuscript, (October 15, 2018 December 31, 2018).
- Domestic Animal Endocrinology- reviewed 1 manuscript, (October 15, 2018 December 31, 2018).
- Journal of Animal Science- Reviewed 3 manuscripts, (October 15, 2018 December 31, 2018).
- Journal of Animal Physiology and Animal Nutrition- Reviewed 1 manuscript, (January 1, 2018 October 15, 2018).
- Journal of Equine Veterinary Science- Reviewer of 1 manuscript in 2017 and 1 manuscript in 2018, (January 1, 2017 October 15, 2018).
- Applied Physiology, Nutrition and Metabolism- Reviewed 2 journal articles in 2017 and 1 in 2018., (January 1, 2017 October 15, 2018).

- Domestic Animal Endocrinology- Reviewed 4 journal articles in 2017 and 3 in 2018., (January 1, 2017 October 15, 2018).
- Comparative Exercise Physiology- Reviewer of 1 journal article., (January 1, 2017 October 15, 2018).
- Journal of Animal Science- Reviewed 3 manuscripts in 2017 and 5 in 2018., (January 1, 2017 October 15, 2018).
- Journal of the Science of Food and Agriculture- Reviewer of 1 manuscript., (January 1, 2017 December 31, 2017).
- American Journal of Physiology Endocrinology and Metabolism- Reviewer for 1 journal article., (January 1, 2017 December 31, 2017).
- PLOS One- Reviewer of 1 manuscript, (January 1, 2017 December 31, 2017).
- Canadian Journal of Physiology and Pharmacology- Reviewer of 1 journal article., (January 1, 2017 December 31, 2017).

#### **Session Chair**

Equine Science Society, Session Chair for the Nutrition Section of 2019 meeting, (June 4, 2019).

Equine Science Society, Nutrition Section, (June 2, 2017).

# **Public Service**

#### **Board Member**

Kentucky Hunter Jumper Association, (November 2015 - November 2020). Judge

Kentucky State 4-H Horse Bowl competition, (June 8, 2018).

Kentucky State 4-H Horse Bowl competition, (June 15, 2017).

#### Volunteer

Going Pro program through Lexington Commerce- Mentor for a high school student job shadowing experience, (June 4, 2018).

UK Ag Equine Programs Booth at Landrover Kentucky Three Day Event, (April 26, 2018).

UK Ag Equine Programs Booth at Rolex Kentucky Three Day Event, (April 25, 2017).

# **Professional Development**

#### **Professional Memberships**

American Society of Animal Science. National. (2011 - Present).

Equine Science Society. (2009 - Present).

National Association of Equine Affiliated Academics. (2009 - Present).

American Society of Nutrition. (2005 - Present).

#### **Development Activities Attended**

#### **Conference Attendance**

- 2021 ASAS-CSAS-SSASAS Annual Meeting and Trade Show. (July 14, 2021 July 17, 2021). American Society of Animal Science. International. Louisville, KY, United States.
- 2021 Equine Science Society meeting. (June 1, 2021 June 4, 2021). Equine Science Society. International. Virtual meeting.
- 2021 National Association of Equine Affiliated Academics Annual Meeting. (May 25, 2021 May 26, 2021). National Association of Equine Affiliated Academics. National. Virtual meeting.
- Equine Science Society Symposium. (June 3, 2019 June 6, 2019). Equine Science Society. International. Asheville, United States.
- National Association of Equine Affiliated Academics annual meeting. (June 2, 2019 June 3, 2019). National Association of Equine Affiliated Academics. National. Asheville, NC, United States.
- Northern Kentucky Equine Conference. (November 10, 2018). Northern Kentucky Horse Network. State. Burlington, KY.
- Kentucky Equine Research Conference 2018. (October 29, 2018 October 30, 2018). Kentucky Equine Research. International. Lexington, United States. Series of invited plenary talks given by international experts in the area of equine nutrition and health
- Annual 2018. (July 8, 2018 July 12, 2018). American Society of Animal Science and Canadian Society of Animal Science. International. Vancouver, Canada.
- Equine Science Society Symposium. (May 30, 2017 June 2, 2017). Equine Science Society. International. Minneapolis, MN, United States.
- National Association of Equine Affiliated Academics Meeting. (May 30, 2017). National Association of Equine Affiliated Academics. National. Minneapolis, MN, United States.

2017 Equine Summit "Developing Tomorrow's Equine Workforce". (April 26, 2017). University of Kentucky Ag Equine Programs. National. Lexington, KY, United States.

#### Self-Study Program

Procurement Card training (Financial Foundations). (September 1, 2021). University of Kentucky. University.

Responsible Conduct of Research- Refresher. (August 20, 2021). CITI Program. University.

Family Educational Rights and Privacy Act training. (August 17, 2021). University of Kentucky. University.

2021 Campus Security Authority training. (August 16, 2021). University of Kentucky.

Refresher: Working with the IACUC. (June 2021). AALAS. National.

Syringes and Needles. (June 2021). AALAS. National.

COVID-19: Back to Campus (Fall 2020). (August 2020). CITI Program.

Human Subject Protection Training (Basic Course). (August 2020). CITI Program.

Responsible Conduct of Research (Basic Course). (July 2020). CITI Program. National.

#### Seminar

- When Students are Sad and Stay Sad: Advising Students with Depression. (September 29, 2021). University of Kentucky Advising Network. University. Lexington, KY, United States.
- iPad Initiative Speaker Series: Making Learning Visible with iPads. (April 9, 2020). University of Kentucky CELT. University.

### Tutorial

Digital Measures training. (May 24, 2018). University of Kentucky. College. Lexington, KY, United States.

SLO Report Training. (October 26, 2017). University of Kentucky. University. Lexington, KY,
 United States.
 Learning how to input information into Taskstream for Student Learning Outcome reporting.

#### Workshop

- Mental Health First Aid training. (December 9, 2021). University of Kentucky Campus Recreation. University. Lexington, KY.
- Trauma and Compassion in the Classroom. (September 29, 2021). University of Kentucky Center for the Enhancement of Teaching and Learning. University. Lexington, KY, United States.
- Regular and Substantive Interaction (RSI) and Academic Engagement. (September 22, 2021). University of Kentucky Teaching, Learning and Academic Innovation. University.
- Discrimination, Harassment, and Sexual Misconduct advisor training. (August 10, 2021). Office of Institutional Equity and Equal Opportunity. University.
- Equity & Inclusion Online. (March 16, 2021). College of Agriculture, Food and Environment. College.
- What Our Students Are Carrying: How to Respond to Racial and Identity-Based Trauma. (February 15, 2021). University of Kentucky Advising Network. University. Lexington, KY, United States.
- Fostering Community & Belonging. (November 16, 2020). College of Agriculture, Food and Envrionment. College. Lexington, KY, United States.
- Global Engagement Academy: Making a Case for Study Abroad. (October 30, 2020). University of Kentucky International Center. University. KY.
- Global Engagement Academy: Global Mobility. (October 21, 2020). University of Kentucky International Center. University. Lexington, KY.
- Cultivating Inclusion Series: Curating a Sense of Belonging. (October 1, 2020). CAFE Office of Diversity. College.
- Using Canvas Quizzes. (September 28, 2020). College of Agriculture, Food and Environment. College.

- Understanding Diversity and Dynamics of Community. (September 24, 2020). College of Agriculture, Food and Environment. College. Lexington, KY.
- Cultivating Inclusion Series: Using inclusive language and DEI skills for personal and professional growth and application. (September 3, 2020). CAFE Office of Diversity. College.
- Week of Teaching: Multi-Modal Instruction. (July 27, 2020 July 31, 2020). Teaching, Learning and Academic Innovation. University.
- CAFE Instructional Design Series: CAFE Canvas Template- Tips & Tricks. (July 13, 2020 July 17, 2020). College of Agriculture, Food and Environment. College.
- Group discussion of the book "Teaching College". (January 2020 May 2020). College of Agriculture, Food and Environment. College.
- Week of Teaching: Fast-Track Your Summer 2020 Courses. (April 27, 2020 May 1, 2020). Teaching, Learning and Academic Innovation. University.
- Global Engagement Academy: Developing a Course Abroad. (April 23, 2020). University of Kentucky International Center. University.
- Global Engagement Academy: International Travel Readiness. (April 23, 2020). University of Kentucky International Center. University.
- Global Engagement Academy: Intercultural Communication. (March 5, 2020). University of Kentucky International Center. University.
- Global Engagement Academy: Internationalization at UK and Global Trends. (March 4, 2020). University of Kentucky International Center. University.
- Lunch and Learn: Teaching College. (December 10, 2019). College of Agriculture, Food and Environment.
- Lunch and Learn: Academic Ombud Services. (October 24, 2019). College of Agriculture, Food and Environment. University. Lexington, KY, United States.

- Lunch and Learn: Philanthropy. (October 1, 2019). College of Agriculture, Food and Environment.
- Lunch and Learn: UK MBA. (October 1, 2018). Gatton College of Business and Economics. University. Lexington, KY, United States.
- Diversity Starts With Us: Understanding Differences. (September 27, 2018). College of Agriculture, Food and Environment. College. Lexington, KY. Workshop to provide guidance in working with minority youth from Carter G. Woodson Academy.
- Lunch and Learn: Community of Concern. (September 12, 2018). University of Kentucky. College. Lexington.
- Advisor workshop: Academic Standing- Probation/ Suspension/ Reinstatement Process. (April 19, 2018). University of Kentucky. College. Lexington, KY, United States.
- Lunch and Learn: Personal & Campus Safety. (April 11, 2018). University of Kentucky. College. Lexington, KY, United States.
- Advisor workshop: Post Midterm Withdrawal/ Retroactive Withdrawal Processes. (April 5, 2018). University of Kentucky. College. Lexington, KY, United States.
- Advisor workshop: Advising Hub and GPS Notes. (March 22, 2018). University of Kentucky. College. Lexington, KY, United States.
- Advisor workshop: Handling Student Alerts. (February 22, 2018). University of Kentucky. College. Lexington, KY, United States.
- Advisor workshop: Reading the Transcript- Interpreting Repeat Option. (February 8, 2018). University of Kentucky. College. Lexington, KY, United States.
- Advisor workshop: Center for Student Success Overview- Individual Roles/ Responsibilities. (January 25, 2018). University of Kentucky. College. Lexington, KY, United States.
- Lunch and Learn: Institutional Animal Care and Use Committee and Office of Research Integrity. (April 10, 2017). University of Kentucky. College. Lexington, KY.

- Lunch and Learn: Institutional Animal Care and Use Committee and Office of Research Integrity. (April 10, 2017). University of Kentucky. College. Lexington, KY, United States.
- Lunch and Learn: UKnowledge. (March 29, 2017). University of Kentucky. College. Lexington, KY, United States.

Unconscious Bias Training. (March 23, 2017). University of Kentucky. College. Lexington, KY.

- Active Shooter Forum. (February 15, 2017). University of Kentucky. College. Lexington, KY, United States.
- Cheating- Curbing, Catching and Consequences. (February 15, 2017). University of Kentucky; Center for the Enhancement of Learning & Teaching. University. Lexington.
- Lunch and Learn: Extension. (February 15, 2017). University of Kentucky. University. Lexington, KY, United States.
- Student Financial Wellness. (February 8, 2017). University of Kentucky. College. Lexington, KY, United States.

#### Leadership development program

- Women's Executive Leadership Development Program. (May 2021 December 2021). University of Kentucky. University.
- Book club: "Make it Stick". (July 2021 August 2021). National Association of Equine Affiliated Academics. National.
- Global Engagement Academy Certification. (November 1, 2020). University of Kentucky International Center. University.

#### Awards and Honors

- *Women's Executive Leadership Development program Class of 2020 (delayed to 2021),* University of Kentucky. Leadership, Selected as a participant, University. (February 2020 Present).
- *Equine Science Award*, American Society of Animal Science. Scholarship/Research/Creative, Recognition Award, International. (July 2021).

- *Ken Freeman Outstanding Advisor Award (Nomination),* University of Kentucky. Advising, Student nominated, University. (May 2019).
- *Ken Freeman Outstanding Advisor Award (Nomination),* University of Kentucky. Advising, Student nominated, University. (February 2017).

# Dr. Jackie L. Wahrmund

College of Agriculture, Food and Environment Department of Animal and Food Science

# Education

- PhD, Oklahoma State University, 2011. Major: Animal Nutrition
- MS, University Of Florida, 2007. Major: Animal Sciences, General
- BS, University Of Kentucky, 2005. Major: Agricultural Economics, Animal Sciences, General

# **Research and Scholarship**

# **Presentations Given**

## **Podium Session**

- Williams R., Fortenberry E., Salem M., Wahrmund J. L., Holtzman C., (2016). A SWOT analysis of the Agriculture Courses for Dual Credit initiative National Association of Colleges and Teachers of Agriculture Conference, National Association of Colleges and Teachers of Agriculture, Honolulu, HI, United States. Accepted, National.
- Green B., Wahrmund J. L., (2016). Impact of hydration supplements on blood electrolyte concentrations of exercised horses during the summer Southern Section of the American Society of Animal Science, Southern Association of Agricultural Scientists, San Antonio, TX, United States. Accepted, Regional.
- Wahrmund J. L., (2016). Student performance in animal nutrition and feeds and feeding based on prior enrollment in chemistry and nutrition courses Southern Section of the American Society of Animal Science Meeting, Southern Association of Agricultural Scientists, San Antonio, TX, United States. Accepted, Regional.

# **Poster Session**

- Lopez J., Bankole T., Wahrmund J. L., (February 2017). A Hedonic Analysis of Feeder Cattle Auction Prices in Northeast Texas Southern Agricultural Economics Association 49th Annual Meeting, Southern Association of Agricultural Scientists, Mobile, AL, United States. Accepted, Regional.
- Bankole T., Lopez J., Bakhtavorian R., Wahrmund J. L., (2016). Empirical analysis of the relationship between feeder cattle cash price and futures price in Northeast Texas Southern Agricultural Economics Association 48th Annual Meeting, Southern Association of Agricultural Scientists, San Antonio, TX, United States. Accepted, Regional.

# Teaching

# Teaching

Prefix Number - Section	Credit Hours	# Enrolled	Code Term Year
ASC 101 - 001	3.00000 - 3.00000	125	10 Fall 2020-2021
ASC 333 - 002	1.00000 - 4.00000	7	10 Fall 2020-2021
ASC 101 - 001	3.00000 - 3.00000	23	30 Spring 2019-2020
ASC 101 - 002	3.00000 - 3.00000	22	30 Spring 2019-2020
ASC 101 - 003	3.00000 - 3.00000	26	30 Spring 2019-2020
ASC 101 - 004	3.00000 - 3.00000	27	30 Spring 2019-2020
ASC 101 - 005	3.00000 - 3.00000	22	30 Spring 2019-2020
ASC 333 - 002	1.00000 - 4.00000	9	30 Spring 2019-2020
ASC 333 - 004	1.00000 - 4.00000	4	30 Spring 2019-2020
ASC 333 - 701	1.00000 - 4.00000	5	30 Spring 2019-2020
ASC 380 - 001	3.00000 - 3.00000	24	30 Spring 2019-2020
ASC 380 - 002	3.00000 - 3.00000	23	30 Spring 2019-2020
ASC 395 - 020	1.00000 - 4.00000	1	30 Spring 2019-2020
EQM 396 - 702	3.00000 - 3.00000	8	30 Spring 2019-2020
ASC 101 - 001	3.00000 - 3.00000	26	10 Fall 2019-2020
ASC 101 - 002	3.00000 - 3.00000	23	10 Fall 2019-2020
ASC 101 - 003	3.00000 - 3.00000	18	10 Fall 2019-2020
ASC 101 - 004	3.00000 - 3.00000	25	10 Fall 2019-2020
ASC 101 - 005	3.00000 - 3.00000	16	10 Fall 2019-2020
ASC 101 - 006	3.00000 - 3.00000	25	10 Fall 2019-2020
ASC 101 - 007	3.00000 - 3.00000	16	10 Fall 2019-2020
ASC 333 - 002	1.00000 - 4.00000	15	10 Fall 2019-2020
ASC 333 - 003	1.00000 - 4.00000	3	10 Fall 2019-2020
ASC 101 - 001	3.00000 - 3.00000	24	30 Spring 2018-2019
ASC 101 - 002	3.00000 - 3.00000	22	30 Spring 2018-2019
ASC 101 - 003	3.00000 - 3.00000	26	30 Spring 2018-2019
ASC 101 - 004	3.00000 - 3.00000	26	30 Spring 2018-2019
ASC 333 - 002	1.00000 - 4.00000	12	30 Spring 2018-2019
ASC 380 - 001	3.00000 - 3.00000	18	30 Spring 2018-2019
ASC 101 - 001	3.00000 - 3.00000	22	10 Fall 2018-2019
ASC 101 - 002	3.00000 - 3.00000	23	10 Fall 2018-2019
ASC 101 - 003	3.00000 - 3.00000	20	10 Fall 2018-2019
ASC 101 - 004	3.00000 - 3.00000	22	10 Fall 2018-2019
ASC 101 - 005	3.00000 - 3.00000	21	10 Fall 2018-2019
ASC 101 - 006	3.00000 - 3.00000	21	10 Fall 2018-2019
ASC 101 - 007	3.00000 - 3.00000	22	10 Fall 2018-2019
ASC 333 - 002	1.00000 - 4.00000	18	10 Fall 2018-2019
ASC 333 - 004	1.00000 - 4.00000	1	10 Fall 2018-2019

456 205 015	1 00000 1 00000	2	10 5-11 2010 2010
ASC 395 - 015	1.00000 - 4.00000	2	10 Fall 2018-2019
ASC 101 - 001	3.00000 - 3.00000	24	30 Spring 2017-2018
ASC 101 - 002	3.00000 - 3.00000	22	30 Spring 2017-2018
ASC 101 - 003	3.00000 - 3.00000	20	30 Spring 2017-2018
ASC 101 - 004	3.00000 - 3.00000	23	30 Spring 2017-2018
ASC 101 - 005	3.00000 - 3.00000	13	30 Spring 2017-2018
ASC 333 - 002	1.00000 - 4.00000	13	30 Spring 2017-2018
ASC 333 - 005	1.00000 - 4.00000	3	30 Spring 2017-2018
ASC 380 - 001	3.00000 - 3.00000	10	30 Spring 2017-2018
EQM 300 - 003	1.00000 - 6.00000	14	30 Spring 2017-2018
ASC 101 - 001	3.00000 - 3.00000	30	10 Fall 2017-2018
ASC 101 - 002	3.00000 - 3.00000	28	10 Fall 2017-2018
ASC 101 - 003	3.00000 - 3.00000	28	10 Fall 2017-2018
ASC 101 - 004	3.00000 - 3.00000	30	10 Fall 2017-2018
ASC 101 - 005	3.00000 - 3.00000	29	10 Fall 2017-2018
ASC 101 - 006	3.00000 - 3.00000	31	10 Fall 2017-2018
ASC 205 - 001	1.00000 - 1.00000	45	10 Fall 2017-2018
ASC 333 - 002	1.00000 - 4.00000	15	10 Fall 2017-2018
ASC 333 - 007	1.00000 - 4.00000	3	10 Fall 2017-2018
ASC 399 - 002	1.00000 - 6.00000	1	10 Fall 2017-2018
ASC 101 - 001	3.00000 - 3.00000	25	30 Spring 2016-2017
ASC 101 - 002	3.00000 - 3.00000	25	30 Spring 2016-2017
ASC 101 - 004	3.00000 - 3.00000	27	30 Spring 2016-2017
ASC 101 - 005	3.00000 - 3.00000	22	30 Spring 2016-2017
ASC 205 - 001	1.00000 - 1.00000	43	30 Spring 2016-2017
ASC 333 - 003	1.00000 - 4.00000	10	30 Spring 2016-2017
ASC 382 - 001	3.00000 - 3.00000	29	30 Spring 2016-2017
ASC 101 - 001	3.00000 - 3.00000	34	10 Fall 2016-2017
ASC 101 - 002	3.00000 - 3.00000	36	10 Fall 2016-2017
ASC 101 - 003	3.00000 - 3.00000	33	10 Fall 2016-2017
ASC 101 - 004	3.00000 - 3.00000	30	10 Fall 2016-2017
ASC 101 - 005	3.00000 - 3.00000	35	10 Fall 2016-2017
ASC 101 - 006	3.00000 - 3.00000	29	10 Fall 2016-2017
ASC 205 - 001	1.00000 - 1.00000	47	10 Fall 2016-2017
ASC 333 - 002	1.00000 - 4.00000	14	10 Fall 2016-2017

# **Teacher Course Evaluations**

Prefix Number - Section	Responses	TCE Course Quality Mean	TCE Teaching Quality Mean	Code Term Year
ASC 101 - 001	31	4.55	4.87	10 Fall 2020-2021
ASC 101 - 001	8	4.75	4.75	10 Fall 2019-2020
ASC 101 - 001	11	4.91	4.91	30 Spring 2018-2019

ASC 101 - 001	14	4.86	4.86	10 Fall 2018-2019
ASC 101 - 001	15	4.67	4.67	30 Spring 2017-2018
ASC 101 - 001	12	4.67	4.67	10 Fall 2017-2018
ASC 101 - 001	8	4.38	4.38	30 Spring 2016-2017
ASC 101 - 001	19	3.63	3.89	10 Fall 2016-2017
ASC 101 - 002	10	4.80	4.80	10 Fall 2019-2020
ASC 101 - 002	15	4.53	4.67	30 Spring 2018-2019
ASC 101 - 002	8	4.50	4.50	10 Fall 2018-2019
ASC 101 - 002	10	4.70	4.50	30 Spring 2017-2018
ASC 101 - 002	16	4.75	4.69	10 Fall 2017-2018
ASC 101 - 002	9	4.67	4.44	30 Spring 2016-2017
ASC 101 - 002	17	4.18	3.76	10 Fall 2016-2017
ASC 101 - 003	6	4.50	4.50	30 Spring 2019-2020
ASC 101 - 003	5	5.00	4.80	10 Fall 2019-2020
ASC 101 - 003	10	4.30	4.20	30 Spring 2018-2019
ASC 101 - 003	9	4.78	4.78	10 Fall 2018-2019
ASC 101 - 003	10	4.80	4.90	30 Spring 2017-2018
ASC 101 - 003	19	4.89	4.89	10 Fall 2017-2018
ASC 101 - 003	13	4.00	3.38	10 Fall 2016-2017
ASC 101 - 004	8	4.75	4.88	30 Spring 2019-2020
ASC 101 - 004	9	4.33	4.56	10 Fall 2019-2020
ASC 101 - 004	13	4.77	4.77	30 Spring 2018-2019
ASC 101 - 004	11	4.82	4.73	10 Fall 2018-2019
ASC 101 - 004	12	4.92	4.92	30 Spring 2017-2018
ASC 101 - 004	10	4.80	4.70	10 Fall 2017-2018
ASC 101 - 004	6	4.50	4.50	30 Spring 2016-2017
ASC 101 - 004	14	3.79	3.93	10 Fall 2016-2017
ASC 101 - 005	8	5.00	5.00	30 Spring 2019-2020
ASC 101 - 005	7	5.00	5.00	10 Fall 2019-2020
ASC 101 - 005	12	4.92	4.83	10 Fall 2018-2019
ASC 101 - 005	16	4.75	4.88	10 Fall 2017-2018
ASC 101 - 005	11	4.91	4.82	30 Spring 2016-2017

ASC 101 - 005	13	4.54	4.15	10 Fall 2016-2017
ASC 101 - 006	15	4.87	4.80	10 Fall 2019-2020
ASC 101 - 006	13	4.77	5.00	10 Fall 2018-2019
ASC 101 - 006	17	4.76	4.76	10 Fall 2017-2018
ASC 101 - 006	8	4.25	4.13	10 Fall 2016-2017
ASC 101 - 007	7	4.71	4.71	10 Fall 2019-2020
ASC 101 - 007	9	4.56	4.78	10 Fall 2018-2019
ASC 205 - 001	28	4.25	4.50	10 Fall 2017-2018
ASC 205 - 001	23	4.04	4.35	30 Spring
				2016-2017
ASC 205 - 001	24	4.00	4.09	10 Fall 2016-2017
ASC 333 - 003	7	4.71	4.86	30 Spring
				2016-2017
ASC 380 - 001	9	4.67	4.78	30 Spring
				2019-2020
ASC 380 - 001	10	3.80	4.30	30 Spring
				2018-2019
ASC 380 - 002	5	4.80	4.80	30 Spring
				2019-2020
ASC 382 - 001	11	4.27	4.36	30 Spring
				2016-2017

Note: With regards to Spring 2020 TCEs please consider the following from page 121 of the UK Playbook for Fall 2020, "It is essential that performance evaluation take into account the extenuating circumstances brought about by the disruption for faculty in all title series and the extraordinary work accomplished by faculty in response to the disruption. Academic leaders shall reiterate that TCEs should be but one indicator of effective teaching in both periodic merit reviews and tenure/promotion decisions. Evaluation of teaching must go beyond student evaluations alone."

#### **Directed Student Learning (excluding theses, dissertations)**

Jessica Hanneman. Teaching Supervision. *Teaching assistant for ASC 101*. Completed (January 10, 2018 - May 4, 2018).

Description: Served as teaching mentor for student completing the Graduate Teaching Certificate

Jessica Scare. Teaching Supervision. *Teaching assistant for ASC 101*. Completed (January 11, 2017 - December 15, 2017).

Description: Served as teaching mentor for student completing the Graduate Teaching Certificate

#### **Academic Advising**

Fall 2019-2020, 45 undergraduate students advised, Undergraduate academic advising.

Spring 2018-2019, 50 undergraduate students advised, Undergraduate advising.

Fall 2018-2019, 44 undergraduate students advised.

Fall 2017-2018, 45 undergraduate students advised.

Spring 2016-2017, 30 undergraduate students advised.

Fall 2016-2017, 30 undergraduate students advised.

Fall 2016-2017, 30 undergraduate students advised.

### Program and Curriculum Development 2019

 Program/Curriculum Name - Education Abroad program: "An Agricultural Tour de France"
 Description: This education abroad program will be offered as ASC 333 in Spring 2020 for students interested in international agriculture. The tour will include visits to livestock facilities, horse farms, vineyards, and cheese production facilities. Approved by the college education abroad committee August 2019.

#### **Other Credit and Non-Credit Instructional Activities**

#### **Guest Lecture**

- Equine Anatomy, Participants: Undergraduate Students, 32, (October 2020) Description: Equine Endocrinology Participants: Other, 20, (October 19, 2020)
- Equine Anatomy, Participants: Undergraduate Students, 47, (April 2020) Description: Equine Endocrinology
- Equine Anatomy, Participants: Undergraduate Students, 51, (April 9, 2019) Description: Endocrinology
- Equine Anatomy, Participants: Undergraduate Students, 42, (November 12, 2018) Description: Endocrinology
- Advanced Equine Evaluation, Participants: Undergraduate Students, 17, (October 30, 2018) Description: Saddlebred Conformation and Evaluation
- Equine Anatomy, Participants: Undergraduate Students, 46, (April 18, 2018) Description: Equine Digestive Anatomy & Physiology
- Poultry Production, Participants: Undergraduate Students, 73, (January 29, 2018) Description: Poultry Anatomy
- Advanced Equine Evaluation, Participants: Undergraduate Students, 14, (December 5, 2017) Description: Saddlebred Evaluation
- Advanced Equine Evaluation, Participants: Undergraduate Students, 15, (December 8, 2016) Description: Saddlebred Horse Evaluation

#### Panelist

Participants: Public Clientele, 75, (July 9, 2020)

#### Workshop

Animal Feeds and Feeding, Participants: Resident, 4, (July 27, 2017) Description: Trained Woodford County 4-H Skillathon team

#### Service

#### **Department Service**

#### **Committee Member**

Equine Science & Management Curriculum Committee, (July 20, 2018 - Present).

Department of Animal and Food Sciences Curriculum Committee, (October 17, 2017 - Present).

AFS Social Committee, (August 2, 2016 - Present).

#### **College Service**

#### **Committee Member**

CAFE Outdoor Learning Space Committee, (September 2019 - Present).

CAFE Retention Committee, (February 2019 - Present).

#### **University Service**

#### Student Org Advisor (Non-Professional Org)

Delta Zeta Sorority, (February 22, 2017 - Present).

#### **Professional Service**

#### Judge

State 4-H Horse Contest, (June 7, 2019). Reviewer, Grant Proposal

USDA Southern Region SARE On-Farm Research Grant, (December 1, 2015 - Present).

USDA Southern Region SARE Graduate Student Grant, (December 1, 2015 - Present).

### **Professional Development**

#### **Professional Memberships**

Equine Science Society. National. (January 1, 2017 - Present).

North American Colleges & Teachers of Agriculture. National. (September 1, 2012 - Present).

Gamma Sigma Delta. National. (September 1, 2009 - Present).

American Registry of Professional Animal Scientists. National. (May 1, 2008 - Present).

American Society of Animal Science. National. (September 1, 2005 - Present).

#### **Development Activities Attended**

#### **Conference Attendance**

North American Colleges & Teachers of Agriculture Annual Conference. (June 12, 2018 - June 15, 2018). NACTA. Ames, IA, United States.

Attended NACTA Conference for professional development for teaching in agriculture higher education

North American Colleges and Teachers of Agriculture Conference. (June 28, 2017 - July 1, 2017). National.

Conference for post-secondary agricultural educators

- Equine Science Society Symposium. (May 30, 2017 June 2, 2017). National. Scientific conference in equine science
- National Association of Equine Affiliated Academics Conference. (May 30, 2017). National. Conference for post-secondary equine science educators
- Southern Association of Agricultural Scientists Meeting. (February 7, 2016 February 9, 2016). Regional.

Scientific conference in agricultural sciences

#### **Faculty Fellowship**

Teaching Portfolio Workshop. (October 25, 2016). UK Center for The Enhancement of Learning & Teaching.

**Teaching Portfolio Workshop** 

#### Seminar

Education Abroad Lunch and Learn. (January 16, 2019). CAFE. College. Lexington, KY, United States.

#### Workshop

- Cultivating Inclusion Series. (October 1, 2020 December 3, 2020). UK CAFE. College. Lexington, KY, United States.
- Building Community in the Classroom. (October 20, 2020). UK CELT. Lexington, KY, United States.
- Understanding Diversity and the Dynamics of Community. (September 24, 2020). UK CAFE. College. Lexington, KY, United States.
- Incorporating iPad Technology Into Your Classes. (February 11, 2020). UK CELT. University. Lexington, KY, United States.
- Why Students Struggle with "Soft Skills" and What You Can Do About It. (March 19, 2019). CELT. University. Lexington, United States.
- The Lecture Isn't Dead: Why and How We Should Keep Lecturing. (February 12, 2019). CELT. University. Lexington, KY, United States.
- Getting to Know the Community of Concern. (January 31, 2019). CELT. University. Lexington, KY, United States.
- CAFE Campus Safety Lunch & Learn. (April 14, 2018). CAFE. Lexington, KY, United States. Learned from police what to do in the event of a campus shooter
- Cheating Curbing, Catching, and Consequences. (February 6, 2018). CELT. Lexington, KY, United States.

Leaned strategies to combat cheating students in the classroom

- Integrity & Ethics in Instruction: A Workshop and Conversation. (January 9, 2018). CAFE. Lexington, KY, United States.
- Student Motivation and Engagement Online. (April 20, 2017). UK Center for the Enhancement of Learning and Teaching. University.Workshop of enhancing student motivation and engagement online
- Creative Assignments to Enhance Student Learning and Success. (April 15, 2017). UK Center for the Enhancement of Learning and Teaching. University. Workshop on creative assignments
- Student Financial Wellness. (January 20, 2017). UK Center for the Enhancement of Learning and Teaching. University.Workshop of student financial wellness
- Universal Design in Canvas Workshop. (December 7, 2016). UK Center for The Enhancement of Learning & Teaching.Universal Design in Canvas Workshop

- Managing Microaggressions Workshop. (November 30, 2016). UK Center for The Enhancement of Learning & Teaching. Managing Microaggressions Workshop
- Student Evaluations Workshop. (November 21, 2016). UK Center for The Enhancement of Learning & Teaching.Student Evaluations Workshop
- Slide Design Workshop. (September 13, 2016). UK Center for The Enhancement of Learning & Teaching. Slide Design Workshop

#### 2020 Cohort Member

Teaching Innovations Institute. (January 2020 - December 2020). UK CELT. University. KY, United States.

#### **Holly Wiemers**

1049 Peacock Rd, Paris, KY 40361, holly.wiemers@uky.edu, (859) 967-6245

#### **Professional Experience**

<u>Communications and Managing Director, University of Kentucky Ag Equine Programs (formerly the UK Equine</u> Initiative), 2006-present

UK's Ag Equine Programs is an overarching framework that encompasses everything equine in UK's College of Agriculture. It includes more than 75 faculty and staff with an equine focus across six different departments. The mission of UK's Ag Equine Programs is to discover, share and apply new knowledge that will enhance the health, performance and management of horses commensurate with the signature status of Kentucky's equine industry.

- Oversees the College's equine marketing communications functions, including planning and implementation of those elements. Includes integration and oversight of equine media relations, public relations, communications planning and the College's equine communication campaign execution through news releases, newsletters, advertising, social media, website presence, marketing collateral, events, displays, partnerships, philanthropy, etc.
- Serves as managing editor, writer and layout design for two local and national award winning online monthly
  newsletters, one about student activities and initiatives and one about equine research and outreach happenings at UK.
  Also serve as editor for additional student, alumni and research equine newsletters.
- Helped establish, brand and build positive awareness about the fledgling Equine Initiative, which began in 2005 as a way
  to connect the multiple equine functions within the College of Agriculture, Food and Environment. Continues to provide
  branding oversight, including expertise in logo and design elements in accordance with University guidelines for the
  program, which has since been renamed UK Ag Equine Programs.
- Serves a key industry relations role in helping to build and enhance relationships with stakeholders and policy makers.
   Fields all media requests and assigns work.
- Provides communications support to equine educational events and campaigns.
- Help provide executive leadership, priority- setting, strategic planning and implementation, decision-making and day-today operational management of the UK Ag Equine Programs' office and function.

### Public Relations and Communications Manager, Information Technology Services, University of Colorado, Boulder, 2002 - 2005

Information Technology Services is the primary information technology provider for the CU-Boulder campus, providing services for telephony, media, computing and networking. The University of Colorado is a research university ranked in the top 26 among the nation's highest rated public universities.

- Served as sole public relations and communications resource for IT department of close to 300 people that supports and communicates to an audience of approximately 35,000 people.
- Created and implemented organizational-wide communications strategy, addressing processes and expectations surrounding messages.
- Assisted upper level management and project leaders with the development and implementation of project or service specific communication plans, while ensuring that the resulting messages were aligned with the organization's strategic communications focus.
- Produced monthly newsletter about campus technology for an audience external to ITS. Planned content, negotiated with contributors, solicited and wrote articles, interviewed subjects, edited, photographed, formatted, distributed the finished product and gauged effectiveness.
- Planned and implemented internal communications to help build sense of community and awareness about ITS initiatives; included development and implementation of award-winning monthly online newsletter.
- Assisted in crisis communications planning and the development of processes for incident response, disaster recovery and business continuity.
- Managed news function of the organization, including story pitches, targeted press releases and weekly update of online RSS news feed.
- Coordinated media inquires and handled public requests for information.
- Co-organized and managed reoccurring campus-wide IT professional support event.
- Managed and planned communications budget.

#### **Holly Wiemers**

### Public Relations & Editorial Assistant, International Arabian Horse Association (now Arabian Horse Association), 1999-2001

AHA is a 46,000 member equine association that registers and maintains a database of more than one million Arabian, Half-Arabian and Anglo-Arabian horses. It administers more than \$4 million in annual prize money, produces national events, maintains official event records, recognizes more than 400 Arabian horse shows and distance rides and provides activities and programs that promote breeding and ownership.

- Developed and pitched targeted press releases, press kits and brochures for national events.
- Coordinated national show publicity, media relations and served as association's on-site spokesperson.
- Wrote in-depth feature stories and columns for eight-times-per-year, four-color industry magazine with a subscription of approximately 30,000.
- Edited copy and provided input for magazine content.
- Set up photographer contracts, electronic photo archiving processes and copyright usage terms.
- Tracked media placement of press releases and monitored usage statistics for association's website.
- Maintained member database for promotional program.

#### Account Representative, WordCraft, Inc., 1998

WordCraft, Inc. was a start-up southern New Mexico agency offering advertising, marketing, graphic design and Web design services.

- Helped develop and implement public relations, marketing and advertising campaigns for approximately 50 corporate clients across New Mexico.
- Developed press releases, advertisements, newsletters, brochures, flyers and website content.
- Took color and black-and-white photographs for client materials.
- Edited in-house and client-supplied written materials for marketing communications collateral.

#### Public Relations, City of Roswell, New Mexico, 1997

*Roswell is New Mexico's fifth largest city with a population of approximately 45,000. Roswell hosts an estimated four million visitors annually.* 

- Developed and pitched targeted press releases and feature stories showcasing city services, achieving high placement with local media.
- Helped coordinate publicity, press conferences and public events surrounding the 50<sup>th</sup> anniversary celebration of a supposed UFO landing in the New Mexico desert, which gained national and international attention.
- Took photos for publication and city records.
- Assisted with Keep Roswell Beautiful anti-graffiti and recycling activities and publicity.

#### Staff Writer, Gallup Independent, 1996

The Gallup Independent is a daily New Mexico newspaper with a circulation of approximately 20,000.

 Covered and wrote stories about city and county government, sports, police issues and feature stories, producing one to six stories per day – from front-page coverage to inside feature stories.

#### Journalism Aid, NMSU Agricultural Communications Department, 1996-1997

- Wrote press releases about college activities for dissemination to local and statewide media agencies.
- Helped produce college newsletter content and other in-house writing assignments.
- Tracked statewide coverage of college produced press releases.

#### Education

- Master of Arts, Journalism (Integrated Marketing Communications), University of Colorado, Boulder
- Bachelor of Arts, Communication Studies, with a minor in Journalism, New Mexico State University
- Bachelor of Science, Biology, New Mexico State University

#### **Professional & Personal Development**

- Adjunct instructor each spring for AEC320, an agricultural marketing and sales class in the Agricultural Economics
  Department within UK's College of Agriculture, Food and Environment. Focus of the three-credit undergraduate course is
  marketing communications with an emphasis on strategic marketing communications process and planning. Have taught
  this class yearly since 2016.
- Public Relations Society of America, member since 1999
  - o Served as chapter president in 2016 and on the board since 2014. Currently serve as ethics chair.
  - Earned national Accreditation in Public Relations in 2014 and maintain that accreditation through professional development.
  - Volunteer PR professional for American Red Cross; deployed to Biloxi, Miss., in 2005 for communications support after hurricanes Katrina and Rita.
- International Association of Business Communicators, member since 2002
- American Marketing Association, member since 2020
- District Commissioner for Bluegrass Pony Club since 2018
- MidSouth Pony Club Tetrathlon Regional Rally organizer since 2020
- Level II swim official through the YMCA
- Successfully completed Mental Health First Aid training in 2022
- Gamma Sigma Delta agricultural honor society, inducted in 2011 through the University of Kentucky College of Agriculture, Food and Environment
- Bourbon County National Ag Day Celebration through Bourbon County Farm Bureau, volunteer to read to children in area elementary schools and help raise awareness about the importance of agriculture
- 2005 University Perspective participant (University of Colorado leadership development program)
- Organizations and activities while an undergraduate student at NMSU
  - o NMSU Equestrian Team founding member; 1995 national champion
  - $\circ \quad {\sf NMSU \ Ceres \ (a griculturally-based \ women's \ fraternity) \ founding \ member}$
  - o NMSU Agri-Marketing Association member and presenter at national competitions
  - o NMSU Horse Judging Team member
  - NMSU Golden Key National Honor Society
  - o Mortar Board Senior Honor Society
  - Lobbyist for NMSU's College of Agriculture & Home Economics at the New Mexico state legislature, January 1996 and February 1997; helped lobby for budget appropriations
  - Volunteer for El Paso, Texas, Therapeutic Horsemanship, a program using horses for physical therapy of mentally, emotionally and physically challenged children

### KRISTEN M. WILSON

227 Youngs Mill Road, Paris, KY 40516 (410) 349-7723 kristenwilson316@gmail.com (Maiden name: Kristen Spahn)

#### **EDUCATION**

MASTER OF SCIENCE, 2005

University of Florida, Specialization in Extension Education, Minor in Youth Development

Best Master's Thesis Award for Excellence in Graduate Research. Agricultural Education and Communications Department

#### BACHELOR OF SCIENCE, 2003

University of Florida, Specialization in Animal Sciences – Equine Industry, Minor in Agriculture Business

#### **PROFESSIONAL EXPERIENCE**

#### Academic Coordinator University of Kentucky, Equine Programs

January 2013 – Present Lexington, KY

- Academic Advising Provide leadership for advising efforts within Equine Science and Management undergraduate program including orientations for new students, major switch requests, advisor reassignments, course overrides, creating advising resources and supporting faculty advisors for our 300 plus students. Serves as the academic advisor for on average 70-80 students.
- Alumni Relations Maintains an equine alumni graduate database including career placement, continuing education and demographic information. Works with the Equine Alumni Affiliated Network (EQAAN) BOD on programming efforts.
- Recruitment Coordinates with Director of Student Relations to develop a recruitment plan including Experience Equine Sessions and in-person and virtual prospective family visits. Creates recruitment materials and works industry events as needed.
- Program Evaluation Responsible for tracking enrollment data including In-state and out of state numbers, student success and retention, graduation statistics and other student demographics utilizing Tableau. Works with the DUS and ESMA faculty to develop ongoing assessment information to evaluate how students are meeting the learning objectives of the program.
- <u>Curriculum</u> Monitors and coordinates curricular changes and proposals in collaboration with Director of Undergraduate Studies. Serves on curriculum committee and coordinates meetings, agendas and minutes.
- Event Coordination Provides leadership for many events such as fall semester student welcome back BBQ, equine clubs and team promotion, graduation celebrations, recruitment and service project efforts.
- Communications Partners to coordinate Tuesday Tidbits (weekly e-newsletter for students), The Graduate Gallop (monthly e-newsletter for alumni) and helps to maintain social media accounts affiliated with UK Equine Programs focusing on student and alumni content
- Wildcat Wrangler Equine Student Ambassador Program Serves as advisor for approximately 12-14 students including teaching a 1 credit course associated with it, coordinating student led activities with a recruitment and building community focus and coordinating the annual selection process.
- UK's College of Agriculture, Food and Environment Staff Awards Nominee (2018 and 2020)
- Enrolled in UK's Essential Leader Program Completed 90% of course work required to complete leadership certificate program and will complete in March 2022. Have taken course work to enhance my leadership skills and knowledge in a variety of topics including conflict management, written and verbal communication skills, teamwork, organizing meetings, problem solving, critical thinking as well as managing diverse teams.

#### August 2019 – Present (Part-time) Lexington, KY

- EQM 101: Intro to the horse and horse industry Fall (Avg. 100 students) and Spring (Avg. 20 students). Supervises Graduate Teaching Assistant & Undergraduate students serving as Peer Mentors
- EQM 300: Peer Mentor Program In conjunction with EQM 101 (Avg. 6 peer mentors)
- Þ EQM 300: Wildcat Wrangler Industry Leadership and Outreach – Fall & Spring (12-14 students)

Consultant
University of Maryland Extension, AGsploration Program

▶ Assisted with curriculum development and editing, data collection and analysis, event registration and facilitation, educational kit assembly, program marketing and promotion, budget management and providing leadership/management for the youth team.

#### **Extension Horse Specialist**

**Part-time Instructor** 

Univeristy of Kentucky, Equine Programs

#### **University of Maryland Extension**

- ▶ Provided leadership for the Maryland 4-H Horse Program consisting of approximately 1,500 youth and 350 adult volunteers. Coordinated all state 4-H horse educational activities and competitive events (at least one major state event/activity each month). Enrollment numbers of state activities and events increased an average of 35%.
- Directly supervised two student workers, four volunteer state team coaches, 115 adult volunteer leaders serving on event ▶ planning committees annually, and 75 Horsemanship Standards Examiners throughout the state of Maryland.
- Managed overall programming funds and budgets and has obtained \$200,000 in competitive grant funds and solicited \$157,000 ▶ through fundraising efforts, sponsorships, and in-kind donations.
- Developed and presented educational resources. Over 60 educational resources related to the equine and 4-H fields have been developed and presented at state, regional, and national levels.
- Coordinated numerous evaluation projects and created evaluation tools surveying clientele of their potential educational needs, perceptions, information gained/learned, and current demographic information. Data collected has been used to change and/or create new educational programming opportunities.
- Maintained, updated, and created communication efforts with clientele through program website, volunteer email list-serv, guarterly electronic newsletter and social media.
- University Teaching Responsibilities: Pasture Management and Hay Production (2007-2010), Equine Business Management (2010) and Equine Health Management (2011). Student recruitment and advising. Developed recruitment materials.
- Awards Received: 2009 NAE4-HA Achievement in Service Award, 2012 UMD College of Agriculture and Natural Resources Off ▶ Campus Junior Faculty Award, 2012 NACAA Excellence in 4-H Programming Award, and over 12 state, regional, and national communications awards.

#### **Coordinator of Extension Activities**

#### University of Maryland, Department of Animal and Avian Sciences

- Assisted nine Professors in the Department with statewide Extension educational programming and events in the areas of ► horse, dairy cattle, beef cattle, and poultry.
- Coordinated five major events annually including collecting registrations, booking speakers, maintaining an event budget, etc. Implemented first regional conference via web conferencing technologies for the Maryland Horse Health and Disease Prevention Seminar.
- Assisted with applied research projects in the animal science fields including setting up projects, collecting and analyzing data, and writing up project findings.
- Managed specific event funds and obtained \$22,000 in sponsorship monies. •

October 2012 – January 2013 (Part-time)

#### December 2006 – August 2012 Ellicott City, MD

College Park, MD

#### September 2005 – December 2006 College Park, MD

#### May 2004 – August 2005 (Part-time) University of Florida, Agriculture Education and Communications Department Gainesville, FL

Served as research assistant on impact and evaluation study of the Southern Rural Development Center (SRDC), collecting data, ▶ conducting interviews with clientele, and creating logic models to assist in building an Evaluation and Reporting System.

#### Assistant/Exercise Rider Hard Rock Farm

**Graduate Research Assistant** 

Assisted in implemented a training plan for eight Tennessee Walking horses up to five days per week, preparing them for showing at the National level. Managed farm and daily duties of 40 horse farm in the absence of farm manager/owner.

#### **County 4-H Intern**

#### **Okeechobee County Cooperative Extension**

Assisted with daily educational programming efforts and clientele visits under the 4-H, Agriculture, and Horticulture County Agents.

#### **Assistant Manager** Whippoorwill Farm

Assisted in management of daily care of horses and farm property and scheduled and managed two part-time farm workers.

#### **Graduate Assistant**

University of Florida, Family Youth and Community Sciences Department/ **Agricultural Education and Communications Department** 

- Assisted State Youth Development Specialist with state 4-H events and long-term strategic planning process which included ► creating logic models and identifying future programmatic impacts.
- Updated and revised UF/IFAS Internship Manual for undergraduate students and UF/IFAS New Agent Orientation Handbook.

#### **TECHNICAL SKILLS**

Microsoft Office Suite (Word, Excel, PowerPoint, Access, Publisher, Outlook and Teams) **Adobe Acrobat Professional** UK's Advising Systems - myUK GPS and Advising Hub

#### **PROFESSIONAL ASSOCIATIONS & ROLES**

Eastern National 4-H Horse Round Up Management Committee - Chair (2019-2021), Horse Judging (2010-2021), Sponsorships and Awards (2009-2015), Horse Bowl (2007-2010)

National Association of Equine Affiliated Academics – Member (2013-present)

Equine Science Society, Member (2006 to present)

American Youth Horse Council – Board Member (2009-2016), Youth Committee Chair (2009-2012), Public Outreach and

Development Committee Co-Chair (2013-2016), Secretary (2012-2014), Vice President (2014-2016)

Epsilon Sigma Phi, Member (2006 to 2012)

National Association of Extension 4-H Agents – Member (2007 to 2013)

Maryland Association of Extension 4-H Agents, Member (2007-2012), Secretary (2008), President Elect (2009), President (2010), Past President (2011)

January 2002 – August 2005 (Part-time) Williston, FL

April 2005 – June 2005 (Part-time) Okeechobee, FL

May 2004 – May 2005 (Part-time)

Gainesville, FL

January 2004 – April 2004 (Part-time) Gainesville, FL

#### Teaching Effort Data for the Equine Content of the Equine Science and Management Undergraduate Curriculum

University of Kentucky, College of Agriculture, Food and Environment Dr. Kristine Urschel, Director of Undergraduate Studies, Equine Science and Management Ms. Kristen Wilson, Academic Program Coordinator, Equine Science and Management Dr. James MacLeod, Director of Equine Programs January 7, 2020

#### 1. Data Summary

Teaching Effort Requirements	
Courses required for the ESMA major	2.62 FTE
Equine-specific emphasis area courses	1.09 FTE
Academic advising for the current 330 ESMA students	0.82 FTE
Director of Undergraduate Studies	0.20 FTE
Total effort requirements	4.73 FTE
Meeting Teaching Requirements	
Faculty and staff with teaching and/or advising appointments*	4.15 FTE
UK employees receiving compensation for overload teaching	0.29 FTE
Part-time external instructors receiving compensation	0.30 FTE
Total effort investments	<b>4.74 FTE</b>

\* Current teaching and advising efforts for many faculty members exceed both their appointment teaching DOE and what they define as their desired target teaching DOE.

#### 2. Data used to determine teaching effort requirements

Major requirement courses:

Course name	Semester	Credits and format	Typical or projected enrollment	%DOE associated with teaching based on CAFE formula
EQM 101- Introduction to the Horse and Horse Industry	Fall	3 credits; all lecture	130 students	12%
EQM 101- Introduction to the Horse and Horse Industry	Spring	3 credits; all lecture	25 students	10%
EQM 105- Equine Behavior and Handling	Spring	2 credits; 1 hour lecture and 2 hour lab/week (10 sections)	90 students (all in the same lecture section and then 9 students/lab section)	25%

EQM 106-	Fall	1 credit; all	60-80 students	4%
Introduction to	1 all	lecture	00-00 students	70
Careers in the		lecture		
Equine Industry				
EQM 106-	Spring	1 credit; all	60-80 students	4%
Introduction to	spring	lecture	00-80 students	470
		lecture		
Careers in the				
Equine Industry	D 11		<b>50</b> • 1 •	120/
EQM 305-	Fall	3 credits; 2 hour	50 students	13%
Equine Industry		lecture, 1 hour		
Issues		recitation (2		
		sections)		
EQM 305-	Spring	3 credits; 2 hour	50 students	13%
Equine Industry		lecture, 1 hour		
Issues		recitation (2		
		sections)		
EQM 351-	Fall	3 credits; all	45-50 students	11%
Equine Health		lecture		
and Diseases				
EQM 351-	Spring	3 credits; all	45-50 students	11%
Equine Health		lecture		
and Diseases				
EQM 396-	Spring	3 credits-	12 students	10%
Equine Study		includes lecture		
Abroad		and travel		
EQM 399-	Fall	3 credits;	10-30 students	10%
Equine Science		experiential		
and Management		1		
Internship				
EQM 399-	Spring	3 credits;	10-30 students	10%
Equine Science	1 0	experiential		
and Management		··· · · · · · · · · · · · · · · · · ·		
Internship				
EQM 399-	Summer	3 credits;	10-30 students	10%
Equine Science	Summer	experiential		10/0
and Management				
Internship				
EQM 490-	Fall	3 credits; all	40-50 students	11%
Capstone for	1 411	lecture		11/0
Equine Science				
and Management				
EQM 490-	Spring	3 credits; all	40-50 students	11%
Capstone for	Spring	lecture	דט-טע פוווט	11/0
<b>1</b>				
Equine Science				
and Management				

ASC 101- Domestic Animal Biology (+ ASC 333) <sup>1</sup>	Spring	3 credits; 2 hours lecture and 2 hours lab (5 sections) + 3 credits for ASC 333	130 students	30%
ASC 310- Equine Anatomy	Fall	3 credits; 2 hours lecture and 2 hours lab (2 sections)	60 students	13%
ASC 310- Equine Anatomy	Spring	3 credits; 2 hours lecture and 2 hours lab (2 sections)	60 students	13%
ASC 320- Equine Management	Fall	3 credits; 2 hours lecture (in 2 sections) and 2 hours lab (2 sections per lecture section)	60-70 students per lecture section	26%
AEC 302- Agricultural Management Principles <sup>2</sup>	Both	4 credits; 3 hours lecture, 2 hours lab (assume 3 lab sections)	75 students per academic year	15%

<sup>1</sup>ASC 101: ASC 101 is taught in both semesters; however, ESMA students generally take this course in the Spring and make up the bulk of the students in the Spring semester. Therefore, for ease of calculations, it was assumed that the DOE required to teach this course to ESMA students was equivalent to the DOE calculation for the spring offering of this course. Additionally, this course has a paired section of ASC 333 (Scholarship of Teaching and Learning of Animal Sciences), which involves the instruction of the undergraduate TAs for this course. Because ASC 333 is an essential component of ASC 101, and is taught by the same instructor, this teaching effort is also included in DOE estimates.

 $^{2}$ AEC 302: ESMA students take this course in either semester during their Junior or Senior year. In order to calculate the approximate enrollment of students in this course on an annual basis, we used the ESMA student enrollment across the entire 2019/20 academic year, which was 75 students. This number of students would have required approximately 1 lecture section and 3 lab sections.

Based on these numbers, the equivalent of 262% DOE (or 2.62 FTE) is required to teach the major requirement courses in the ESMA program.

Course name	Semester	Credits and format	Typical or projected enrollment	%DOE associated with teaching based on CAFE formula
EQM 210- Tools and Tack in the Equine Industry	Fall	2 credits- all lecture	30 students	7%

Equine-specific emphasis area courses:

EQM 300- Global	Fall	3 credits- all	30 students	10%
Sport horse industry*		lecture		
EQM 300-	Fall	3 credits- all	30 students	10%
Thoroughbred		lecture		
Investments*				
EQM 300- Equine	Fall	1 credit-	12 students	3%
Industry Leadership		experiential		
and Outreach				
EQM 300- Equine	Spring	2 credits-	12 students	7%
Industry Leadership		experiential		
and Outreach				
EQM 301-	Spring	1 credit- all	60 students	4%
Thoroughbred Sales		lecture		
EQM 302- Equine	Spring	1 credit- all	30 students	3%
Event Planning		lecture		
EQM 340- Equine	Spring	3 credits- all	30 students	10%
Facility Design and		lecture		
Management				
ASC 311- Advanced	Fall	2 credits-	20 students	7%
Equine Evaluation		lecture and		
		lab		
ASC 410G- Equine	Spring	3 credits- 2	25 students	10%
Science		hours		
		lecture, 2		
		hours lab		
ASC 389- Equine	Spring	2 credits- all	30 students	7%
Nutrition		lecture		
AEC 312- Equine	Spring	3 credits- all	30 students	10%
Markets		lecture		
AEC 325- Equine	Spring	3 credits- all	30 students	10%
Law*		lecture		
VS 307- Genetics of	Fall	3 credits- all	45 students	11%
Horses		lecture		

Note: VS 500 (Advanced Equine Reproduction) and VS 507 (Advanced Horse Genetics), will also count towards emphasis area credit; however, only a small percentage of the students enrolled in these classes are ESMA students and so we have not included these courses in our calculations

\*These courses are taught by individuals external to the university with a part time teaching appointment compensated by either Equine Programs (two sections of EQM 300) or Agricultural Economics (AEC 325).

Based on these numbers, the equivalent of 109% DOE (or 1.09 FTE) is required to teach the equine-specific emphasis area courses in the ESMA program. It is also worth noting that students also take other CAFE courses that are not equine-specific, particularly with the AEC, ASC and CLD prefixes to meet emphasis area credit and these are not accounted for in the calculation of the instructional needs associated with ESMA.

Overall, in order to deliver the major requirement courses and the equine-specific emphasis area courses, 3.71 FTE are required

#### Advising and administrative needs for the ESMA program

In addition to content delivery, there is also FTE associated with undergraduate student advising and the administrative appointment of the Director of Undergraduate Studies. The FTE needs are as outlined below:

Advising: There are currently 330 students enrolled in the ESMA program, which equates to a 82.5% DOE (or 0.82 FTE)

Administration: The Director of Undergraduate Studies is currently given a 20% Administrative DOE (0.20 FTE).

#### The advising and administrative needs for the ESMA program require 1.02 FTE.

Taken together and at the current time, our best estimate of the FTE required to deliver the major requirement courses, the equine-specific emphasis area courses, advise all of the ESMA undergraduate students, and oversee the ESMA degree program is equivalent to 4.73 FTE. Please note, this FTE number is almost certainly an underestimate of the overall teaching needs associated with the program, as the enrollment of students in emphasis area courses that are not equine-specific are not accounted for and in many cases may make up a significant percentage of total enrollment in these courses. This places additional strain on teaching resources throughout CAFE, particularly for the academic departments of Animal and Food Sciences, Agricultural Economics, and Community and Leadership Development.

#### 2. Data used to determine how the teaching needs are being met

Faculty and Staff of CAFE with teaching and/or advising appointments

The majority of ESMA program needs are from full time University of Kentucky faculty and staff. The ESMA-specific contributions are summarized in the table below. It is important to note that in addition to these contributions, a majority of these individuals also have instructional DOE associated with the delivery of courses and/or the advising of students in their "home" department. All of the faculty and staff listed below are currently at or above their target for instructional DOE.

Faculty or Staff	Departmental	DOE associated with the	Explanation of
name	Affiliation	ESMA undergraduate	contributions to ESMA
		program	program
Ernie Bailey	Veterinary Science	10%	VS 307
Fernanda Camargo	Animal and Food	30%	EQM 351 and EQM 396;
	Sciences		advising
Robert Coleman	Animal and Food	30%	EQM 210 and EQM 340;
	Sciences		advising

Camie Heleski	Animal and Food	60%	EQM 305, EQM 490;
Cullie Heleski	Sciences/Equine	0070	advising
	Programs		uuvising
т 'т	5	2.40/	
Laurie Lawrence	Animal and Food	24%	ASC 311, ASC 389, ASC
	Sciences		410G
Jamie MacLeod	Veterinary Science	10%	EQM 490
Savannah Robin	Equine Programs	43%	EQM 399; advising
Mary Rossano	Animal and Food	65%	ASC 320, EQM 105;
	Sciences		advising
Jill Stowe	Agricultural	10%	AEC 312
	Economics		
Colette Tebeau	Animal and Food	20%	ASC 310
	Sciences		
Kristine Urschel	Animal and Food	27.5%	Director of Undergraduate
	Sciences		Studies, advising
Jackie Warhmund	Animal and Food	55%	ASC 101, EQM 396;
	Sciences/Equine		advising
	Programs		
Kristen Wilson <sup>1</sup>	Equine Programs	30%	Advising

<sup>1</sup>Currently Kristen Wilson does not have teaching listed as one of her job responsibilities and so this value only includes her advising responsibilities

**Currently, CAFE faculty and staff provide approximately 4.15 FTE associated with the instructional, advising and curricular needs of the ESMA program.** In many cases, faculty are at an overall instructional DOE greater than their target in order to meet the instructional demands of this program. This has resulted in a reduction in their DOE in other areas, including research and extension.

Part-time instructors internal to the University of Kentucky receiving compensation for overload

Instructor name	Course	%DOE associated with teaching based on CAFE formula	Department/Unit financially supporting the instructor salary
Kristen Wilson	EQM 101- Introduction to the Horse and Horse Industry	22%	Equine Programs
Alicia Benben	EQM 301- Thoroughbred Sales	4%	Equine Programs
Samantha Geller	EQM 302- Equine Event Planning	3%	Equine Programs

Currently, part-time instructors internal to the University of Kentucky provide 0.29 FTE towards the instructional needs of the ESMA program.

#### Part-time instructors external to the University of Kentucky receiving compensation

Instructor name	Course	%DOE associated	Department/Unit
		with teaching based	financially supporting
		on CAFE formula	the instructor salary
Reese Koffler-	EQM 300- Global	10%	Equine Programs
Stanfield	Sport horse industry		
Mark Ackerman	EQM 300-	10%	Equine Programs
	Thoroughbred		
	Investments		
Walter Robertson	AEC 325- Equine	10%	Agricultural
	Law		Economics

There are currently 3 courses, where there are external instructors who are compensated for teaching emphasis area courses related to the ESMA curriculum.

## Currently, part-time instructors external to the University of Kentucky provide 0.30 FTE towards the instructional needs of the ESMA program.

**Overall, there is currently 4.74 FTE worth of effort from all sources associated with the instructional, advising, and curricular needs of the ESMA program.** This closely aligns with the 4.73 FTE required to deliver the major requirement courses, the equine-specific emphasis area courses, advise all of the undergraduate students, and oversee the ESMA degree program. Importantly, however, not all instructional needs are currently being met by UK employees or those with instruction included as a part of their job responsibilities. Of particular note is EQM 101, the core introductory course for the entire major, which is currently being taught by a part time instructor. Additionally, as noted above, CAFE faculty/staff with teaching appointments are in many cases currently teaching above their target DOE for instruction, impacting their effort in areas such as research, extension, and service. Finally, the program currently has an extremely limited capacity to adjust to any unanticipated personnel event such as an extended leave of absence for health reasons, accommodate further student enrollment growth, develop new courses, explore the potential of developing online courses, or to pursue other innovative instructional initiatives.

Teaching Effort Requirements	
Courses required for the ESMA major	2.62 FTE
Equine-specific emphasis area courses	1.09 FTE
Academic advising for the current 330 ESMA students	0.82 FTE
Director of Undergraduate Studies	0.20 FTE
Total effort requirements	4.73 FTE
Meeting Teaching Requirements	
Faculty and staff with teaching and/or advising appointments*	4.15 FTE
UK employees receiving compensation for overload teaching	0.29 FTE
Part-time external instructors receiving compensation	0.30 FTE
Total effort investments	<b>4.74 FTE</b>

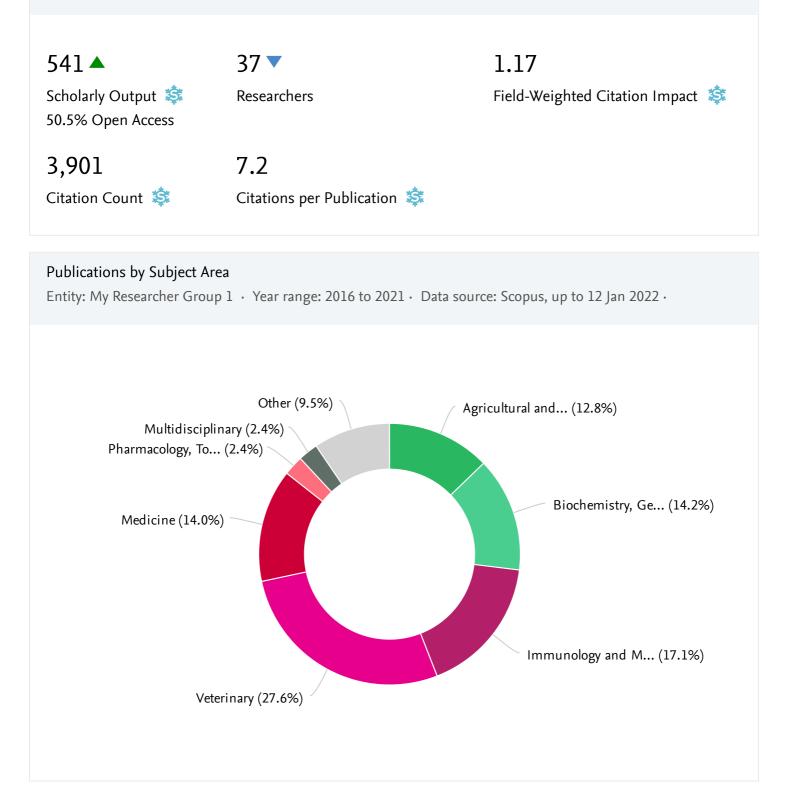
\* Current teaching and advising efforts for many faculty members exceed both their appointment teaching DOE and what they define as their desired target teaching DOE.

### Appendix Core Area 4.a UK Equine Researchers (Macleod List) 2016-2021

My Researcher Group 1 2016 to 2021

#### Overall research performance

Entity: My Researcher Group 1 · Year range: 2016 to 2021 · Data source: Scopus, up to 12 Jan 2022 ·



### Top 5 Research Topic Clusters

Entity: My Researcher Group 1  $\cdot$  Year range: 2016 to 2021  $\cdot$  Data source: Scopus, up to 12 Jan 2022  $\cdot$ 

	By this Group of Researchers		Worldwide	
		Field- Weighted		
	Scholarly	Citation	Prominence	
Topic Cluster	Output	Impact	percentile	
Horses; Horse Diseases; Exercise TC.452	98	1.32	41.070	
Echinococcosis; Schistosomiasis; Parasites TC.109	73	1.39	77.191	
Dairy Cows; Cows; Mastitis TC.136	51	1.49	82.207	
Human Influenza; Orthomyxoviridae; Influenza Vaccines TC.147	42	1.06	94.381	
Rotavirus; Norovirus; Coronavirus TC.403	23	0.93	95.318	

### Topic Clusters

Entity: My Researcher Group 1  $\cdot$  Year range: 2016 to 2021  $\cdot$  Data source: Scopus, up to 12 Jan 2022  $\cdot$ 

	By this Group of Researchers		Worldwide
Topic Cluster	Scholarly Output	Field- Weighted Citation Impact	Prominence percentile
Horses; Horse Diseases; Exercise TC.452	98	1.32	41.070
Echinococcosis; Schistosomiasis; Parasites TC.109	73	1.39	77.191
<b>Dairy Cows; Cows; Mastitis</b> TC.136	51	1.49	82.207
Human Influenza; Orthomyxoviridae; Influenza Vaccines TC.147	42	1.06	94.381
Rotavirus; Norovirus; Coronavirus TC.403	23	0.93	95.318
<b>Toxoplasma; Toxoplasmosis; Neospora</b> TC.743	15	1.29	52.709
<b>Pregnancy; Pre-Eclampsia; Women</b> TC.85	10	1.93	90.301
MicroRNAs; Long Untranslated RNA; Neoplasms TC.219	8	1.07	99.599
Cytomegalovirus; Cytomegalovirus Infections; Herpes Zoster TC.225	8	0.62	71.572
<b>Genome; Neoplasms; Genes</b> TC.436	8	1.06	94.783

#### Collaboration

Entity: My Researcher Group 1 · Year range: 2016 to 2021 · Data source: Scopus, up to 12 Jan 2022 ·

# Scholarly Output in My Researcher Group 1, by amount of international, national and institutional collaboration

				Citations	Field- Weighted
Metric		Scholarly Output	Citations	per Publication	Citation
International collaboration	38.8%	210	1,780	8.5	1.33
<ul> <li>Only national collaboration</li> </ul>	41.2%	223	1,422	6.4	1.10
<ul> <li>Only institutional collaboration</li> </ul>	18.5%	100	646	6.5	1.02
<ul> <li>Single authorship (no collaboration)</li> </ul>	1.5%	8	53	6.6	0.87

#### Academic-Corporate Collaboration

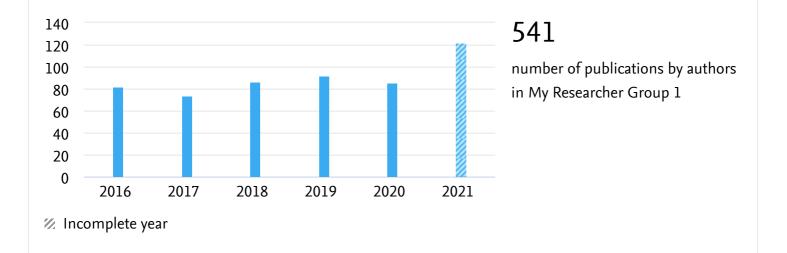
Entity: My Researcher Group 1 · Year range: 2016 to 2021 · Data source: Scopus, up to 12 Jan 2022 ·

#### Scholarly Output in My Researcher Group 1 with both academic and corporate author affiliations

Metric		Scholarly Output	Citations	Citations per Publication	Field- Weighted Citation Impact
<ul> <li>Academic- corporate collaboration</li> </ul>	6.1%	33	346	10.5	1.24
<ul> <li>No academic- corporate collaboration</li> </ul>	93.9%	508	3,555	7.0	1.17

#### Scholarly Output

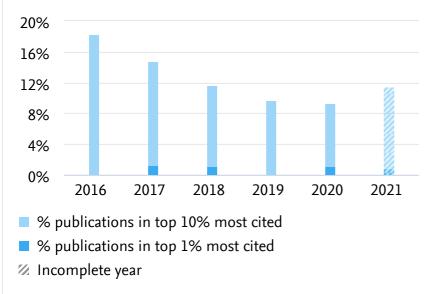
Entity: My Researcher Group 1 · Year range: 2016 to 2021 · Data source: Scopus, up to 12 Jan 2022 ·



#### Outputs in Top 10% Citation Percentiles (field-weighted)

Entity: My Researcher Group 1 · Year range: 2016 to 2021 · Data source: Scopus, up to 12 Jan 2022 ·

Share of publications in My Researcher Group 1 that are among the most cited publications worldwide **field-weighted** 

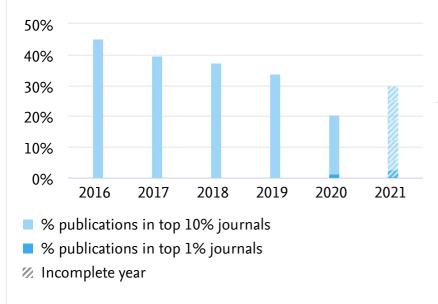


### 67 (12.4%)

number of publications in the top 10% most cited publications worldwide

#### Publications in Top Journal Percentiles by CiteScore Percentile

Entity: My Researcher Group 1 · Year range: 2016 to 2021 · Data source: Scopus, up to 12 Jan 2022 ·



Share of publications in My Researcher Group 1 that are in the top journals by CiteScore Percentile

## 176 (33.8%)

number of publications in the top 10% journals by CiteScore

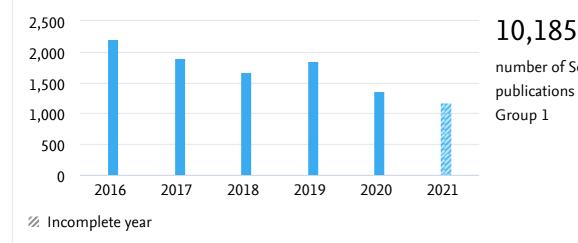
### Most cited publications

Entity: My Researcher Group 1  $\cdot$  Year range: 2016 to 2021  $\cdot$  Data source: Scopus, up to 12 Jan 2022  $\cdot$ 

Publication	Citations
Local admixture of amplified and diversified secreted pathogenesis determinants shapes mosaic Toxoplasma gondii genomes. Lorenzi, H., Khan, A., Behnke, M.S. and 29 more (2016) Nature Communications, 7.	132
Estimating US dairy clinical disease costs with a stochastic simulation model. Liang, D., Arnold, L.M., Stowe, C.J. and 2 more (2017) Journal of Dairy Science, 100 (2), pp. 1472-1486.	98
Metagenomic characterization of the virome associated with bovine respiratory disease in feedlot cattle identified novel viruses and suggests an etiologic role for influenza D virus. Mitra, N., Cernicchiaro, N., Torres, S. and 2 more (2016) Journal of General Virology, 97 (8), pp. 1771-1784.	85
Improved reference genome for the domestic horse increases assembly contiguity and composition. Kalbfleisch, T.S., Rice, E.S., DePriest, M.S. and 18 more (2018) Communications Biology, 1 (1).	64
Pathogenic Helicobacter pylori strains translocate DNA and activate TLR9 via the cancer-associated cag type IV secretion system. Varga, M.G., Shaffer, C.L., Sierra, J.C. and 14 more (2016) Oncogene, 35 (48), pp. 6262-6269.	58

#### Views Count

Entity: My Researcher Group 1 · Year range: 2016 to 2021 · Data source: Scopus, up to 12 Jan 2022 ·

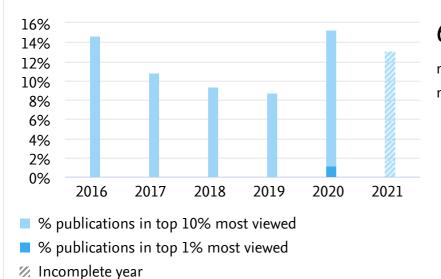


number of Scopus views received by publications in My Researcher Group 1

#### Outputs in Top Views Percentiles (field-weighted)

Entity: My Researcher Group 1 · Year range: 2016 to 2021 · Data source: Scopus, up to 12 Jan 2022 ·

Share of publications in My Researcher Group 1 that are among the most viewed publications worldwide **field-weighted** 

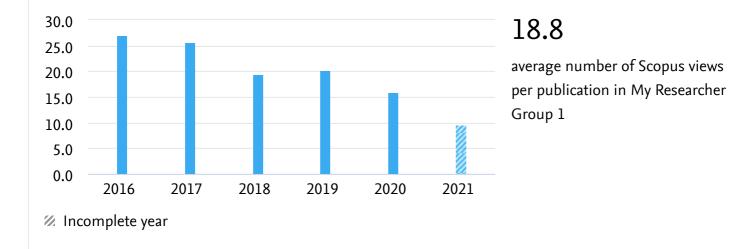


# 65 (12.0%)

number of publications in the top 10% most viewed publications worldwide

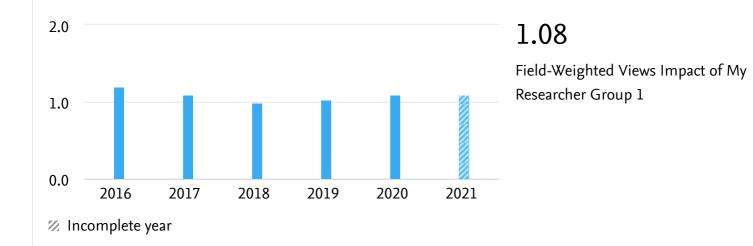
#### Views per Publication

Entity: My Researcher Group 1 · Year range: 2016 to 2021 · Data source: Scopus, up to 12 Jan 2022 ·



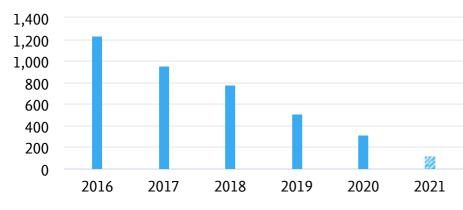
#### Field-Weighted Views Impact

Entity: My Researcher Group 1 · Year range: 2016 to 2021 · Data source: Scopus, up to 12 Jan 2022 ·



#### Citation Count

Entity: My Researcher Group 1 · Year range: 2016 to 2021 · Data source: Scopus, up to 12 Jan 2022 ·



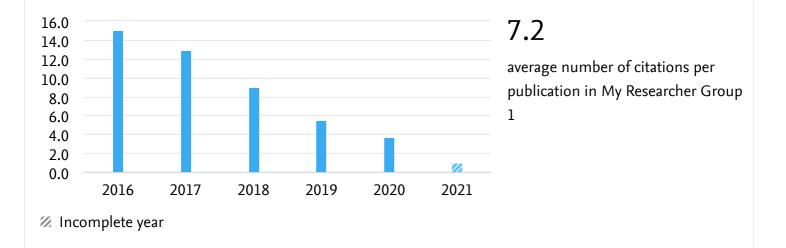
### 3,901

number of citations received by publications in My Researcher Group 1

Incomplete year

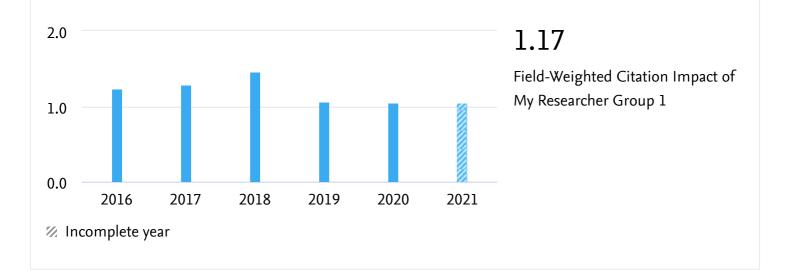
#### Citations per Publication

Entity: My Researcher Group 1 · Year range: 2016 to 2021 · Data source: Scopus, up to 12 Jan 2022 ·



### Field-Weighted Citation Impact

Entity: My Researcher Group 1 · Year range: 2016 to 2021 · Data source: Scopus, up to 12 Jan 2022 ·



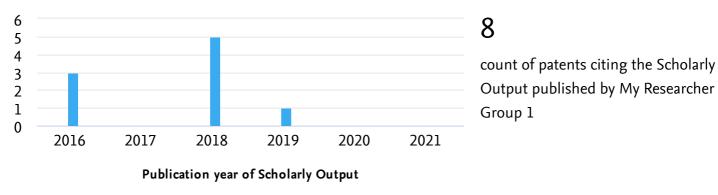
#### Researchers

Entity: My Researcher Group 1 · Year range: 2016 to 2021 · Data source: Scopus, up to 12 Jan 2022 ·

Nam	ne	Scholarly Output	Most recent publication	Citations	<i>h</i> -index
1.	Nielsen, Martin Krarup	80	2021	675	27
2.	Ball, Barry Allen	76	2021	588	34
3.	Kalbfleisch, Ted	54	2021	408	21
4.	Li, Feng	47	2021	544	31
5.	Troedsson, Mats H.T.	44	2021	367	33
6.	Wang, Dan	37	2021	370	17
7.	Stanley, Scott D.	32	2021	291	25
8.	Macleod, James N.	26	2021	234	24
9.	Adams, Amanda A.	25	2021	155	13
10.	Horohov, David W.	23	2021	100	32

#### **Citing-Patents Count**

Entity: My Researcher Group 1 · Year range: 2016 to 2021 · Data source: Patent data, up to 01 Dec 2021 ·



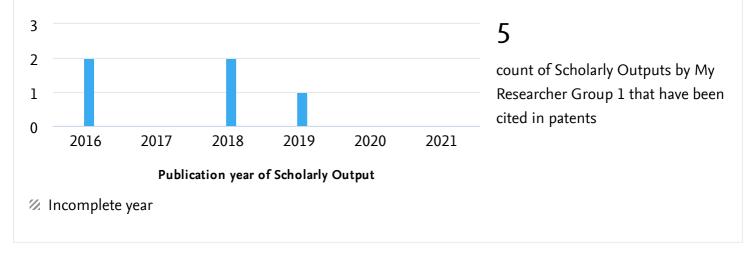
#### Patent office: All Patent Offices

Incomplete year

#### Patent-Cited Scholarly Output

Entity: My Researcher Group 1 · Year range: 2016 to 2021 · Data source: Patent data, up to 01 Dec 2021 ·





2017:

Adams, Amanda. "Effects of Pergolide Treatment on Metabolic and Immunological Function in Horses with Pituitary Pars Intermedia Dysfunction (PPID)". Boehringer Ingelheim Vetmedica. 10/1/17-8/31/18. \$79,731.

Balasuriya, Udeni. "Identification of Genetic Factors Responsible for Establishment of Equine Arteritis Virus Carrier State in Stallions". National Institute of Food and Agriculture. 1/1/13-12/31/18. \$484,934

Loux, Shavahn. "MicroRNAs as Markers of Placental Health in the Mare". Grayson Jockey Club Research Foundation Inc. 4/1/17-3/31/18. \$15,000.

Nielson, Martin. "Combination Anthelmintic Therapy # Short and Long Term Benefits". Zoetis LLC. 7/15/16-6/30/18. \$25,680.

Nielson, Martin. "Smartphone egg count validation study". Zoetis LLC. 7/1/16-4/30/17. \$711.

Nielson, Martin. "Engineered Probiotics for Farm Animal and Human Nematodes". University of Massachusetts. 2/1/16-1/31/18. \$57,868.

Nielson, Martin. "Anthelmintic Efficacy of Novel Compounds Against Equine Strongyles - a Proof of Principle Study". Merial Ltd. 11/4/17-11/3/18. \$40,059.

Shaffer, Carrie. "Caught in the Act: Visualizing the Architecture of Bacterial Type IV Secretion System Machinery at the Cell-Cell Interface". Burroughs Wellcome Fund. 4/1/17-12/31/17. \$10,000.

2018:

Adams, Amanda. "Effect of Deodorase 2X Supplementation on Joint Health and Markers of Systemic Inflammation in Older Horses". Alltech Incorporated. 2/16/18-7/25/18. \$17,664.

Adams, Amanda. "To Determine the Effects of Probiotic Supplementation (EquiBrew) on Immune, Metabolic and Microbiome Changes in Senior Horses". BioBrew Ltd. 8/29/17-8/28/18. \$13,351.

Adams, Amanda. "Effects of Pergolide Treatment on Metabolic and Immunological Function in Horses with Pituitary Pars Intermedia Dysfunction (PPID)". Boehringer Ingelheim Vetmedica. 10/1/17-1/1/19. \$79,731.

Chambers, Thomas. "A Novel and More Effective Bivalent Live-attenuated Influenza Vaccine". University of Rochester Medical Center. 5/1/18-5/31/19. \$46,950.

Nielson, Thomas. "Anthelmintic Efficacy of Novel Compounds Against Equine Strongyles - a Proof of Principle Study". Merial Ltd. 11/4/17-2/4/19. \$40,059.

Nielson, Martin. "Engineered Probiotics for Farm Animal and Human Nematodes". University of Massachusetts. 2/1/16-1/31/18. \$68,032.

2019:

Adams, Amanda. "Effects of Dietary Industrial Hempseed Products (IHP) on Equine Health". Enhanced Pet Sciences. 7/1/18-6/30/21. \$419,924.

Adams, Amanda. "To Determine the Effects of Diamond V XPC Supplementation on Immune Function in Senior Horses". Diamond V. 7/1/18-7/31/19. \$25,781.

Ball, Barry. "Simplified Genetic Tests for Equine Embryos During a Standard Embryo Transfer". University of Tennessee. 11/1/18-2/29/19. \$29,173.

Chambers, Thomas. "Elucidation of the Mechanism of Suppression of Type-I IFN Response by Equine Herpesvirus-1". American Quarter Horse Foundation. 9/1/18-9/30/19. \$19,962.

Chambers, Thomas. "Interferon response inhibition by equine herpesvirus-1". KY Horse Racing Commission. 11/1/18-6/30/20. \$69,754.

Horohov, David. "Evaluation of the EHV-1 Cytotoxic Cell Index (CTI) in Horses Vaccinated with a Bivalent EHV 4/1 Vaccine Compared to Trivalent and Polyvalent Combination EHV 4/1 Vaccines". Zoetis LLC. 1/22/19-10/31/19. \$105,688.

Janes, Jennifer. "Characterizing Compositional and Mechanical Changes of Equine Proximal Sesamoid Bone Associated with Catastrophic Race Failure". KY Horse Racing Commission. 3/1/19-2/28/20. \$50,000.

Lawrence, Laurie. "Effect of Prebiotics on Dry Matter, NDF and ADF Digestibility of Common Equine Feeds Using an in Vitro Model". Cooperative Research Farms. 12/1/18-10/1/19. \$12,739.

Nielson, Martin. "The Role of Moxidectin in Worm Expulsion". Zoetis LLC. 8/1/18-12/31/18. \$35,801.

Nielson, Martin. "A Test for the Detection of Equine Small Strongyles; Supporting Sustainable Worm Control in Practice". Moredun Research Institute. 3/1/18-9/30/19. \$54,270.

Nielson, Martin. "Zoetis Resident in Veterinary Parasitology". Oklahoma State University. 7/1/16-6/30/20. \$105,000.

Nielson, Martin. "Engineered Probiotics for Farm Animal and Human Nematodes". University of Massachusetts. 2/1/16-1/31/20. \$79,029.

Nielson, Martin. "Mapping the Intestinal Microbiome of Parascsrids spp.: A Pilot Study". Oklahoma State University. 12/1/18-11/30/19. \$11,925.

Page, Allen. "Inflammation in Catastrophically Injurred Thoroughbreds". KY Horse Racing Commission. 9/15/18-6/30/20. \$164,488.

Shaffer, Carrie. "Helicobacter pylori Blood Biomarker for Gastric Cancer Risk in East Asia". Duke University. 5/1/18-6/30/19. \$40,000.

Stanley, Scott. "Equine Biologic Passport". KY Horse Racing Commission. 2/15/19-8/31/19. \$15,000.

2020:

Adams, Amanda. "Understanding the Effects of Varying Nutrient Content in Forage on Postprandial Insulin Responses in Equine Metabolic Syndrome horses". Morris Animal Foundation. 5/1/20-4/30/21. \$39,335.

Adams, Amanda. "Mars Equestrian Scholar Research on Equine Endocrine Disorders of Pituitary Pars Intermedia ("PPID"), Equine Metabolic Syndrome (EMS)/Obesity/Laminitis and Geriatric Horse Healthcare/Nutritional Management". Mars Petcare US Incorporated. 12/10/19-8/1/24. \$120,00.

Hayes, Morgan. "Predoctoral Fellowship for McGill: Improving Indoor Arenas for the Equine Industry". National Institute of Food and Agriculture. 6/15/20-6/14/23. \$180,000.

Kalbfleisch, Theodore. "Annotation of Functional Regulatory Regions in the Horse". University of Nebraska. 4/1/19-2/28/22. \$37,516.

Nielson, Martin. "Engineered Probiotics for Farm Animal and Human Nematodes". University of Massachusetts. 2/1/16-1/31/21. \$79,029.

Nielson, Martin. "Larvicidal Versus Non-Larvicidal Treatment of Cyathostomin Parasites: Immunologic and Histologic Reactions to Macrocyclic Lactone Treatment". Zoetis LLC. 7/1/19-6/30/21. \$236,914.

Nielson, Martin. "Efficacy Determination of Novel Anthelmintic Compounds". Boehringer Ingelheim Animal Health USA Incorporated. 7/24/19-7/23/20. \$55,400.

Smith, Samuel. "Ecological and Economic Benefits of Resource Conservation on Horse Farms". Natural Resources Conservation Service. 6/1/20-2/27/23. \$361,674.

Smith, Samuel. "Publication Update: Grazing Alfalfa". National Alfalfa and Forage Alliance. 9/1/19-12/31/20. \$4,714.

2021:

Chambers, Thomas. "Epidemic Strains of Equine Influenza Virus: Cross-Reactivity with Vaccine". American Quarter Horse Foundation. 10/1/20-3/31/22. \$32,002.

Chambers, Thomas. "New Generation Equine Influenza Bivalent H3N8 VLP Vaccine". Grayson Jockey Club Research Foundation Inc. 4/1/21-3/31/23. \$115,358.

Howe, Daniel. "Bumped Kinase Inhibitor for Toxoplasmosis and and Sarcocystosis". University of Washington. 6/1/20-5/31/23. \$182,377.

Li, Feng. "Influenza D Virus Entry and Tissue Tropism". National Institute of Allergy and Infectious Diseases. 9/21/18-8/31/23. \$1,007,440.

Nielson, Martin. "Evaluation of Novel Anthelmintic Compounds Against Equine Strongylid Parasites". Boehringer Ingelheim Animal Health USA Incorporated. 5/7/21-3/31/22. \$60,955.

Paige, Allen. "Identification of Novel mRNA Targets in Catastrophically Injured Thoroughbred Racehorses Using RNA Sequencing". KY Horse Racing Commission. 7/1/20-6/30/22. \$132,228.

Romano, Megan. "Ion Chromatography System for Sample Analysis". Food and Drug Administration. 9/20/20-8/31/21. \$56,678.

Troedsson, Mats. "Protein Based in Vivo Diagnostics for Endometrial Biofilms". Grayson Jockey Club Research Foundation Inc. 3/1/20-4/30/23. \$48,145.

# 2021 Appendix Core Area 4. 2020 Appendix Core Area 4. 20200 Appendix Core 4.

A focus on UK equine research and service programs, with relevance for horses from weanling to yearling.

LINEJANUARY 5JANUARY 5JANUARY 19EBRUARY 2EBRUARY 2EBRUARY 9



Ag Equine Programs College of Agriculture, Food and Environment

KBVE CE available for attending live sessions. Sessions will be recorded and posted online for registered participants. No CE credit for recorded sessions.

### to register SCAN HERE



## **TOPICS AND SPEAKERS**

#### MUSCULOSKELETAL 01/05/2021

DR. SCOTT STANLEY DR. MACLEOD LAB DR. JENNIFER JANES

BPs, NSAIDs and other meds in the juvenile horse

Sesamoid bone maturation project

Bone Pathology in Wobbler's Syndrome

#### **NUTRITION AND PASTURE TOPICS**

DR. MIEKE BRUMMER-HOLDER DR. KRISTINE URSCHEL DR. RAY SMITH & KRISTA LEA

#### 01/19/2021

Mineral requirements for a growing horse Amino acids and protein synthesis in the growing horse UK Pasture Evaluation Program

#### PARISITOLOGY, VACCINATION IMMUNOLOGY, CAUSES OF MORTALITY

#### 02/09/2021

DR. DAVID HOROHOV	Vaccination, immunity and immune response in weanlings					
DR. MARTIN NIELSON	Parisitology as it pertains to weanlings and yearlings					
DR. LAURA KENNEDY	Common(est) cause of mortality in this age group					
ΗΟΤ ΤΟΡΙ	CS (10 MIN SESSIONS)					
	02/09/2021					
HOLLY WIEM	ERS, DR. BARRY BALL, DR. JILL STOWE,					
	TERSON, DR. SCOTT STANLEY, DR. MARTIN					
NIELSEN, DR. KIMBERLY TUMLIN, DR. ALLEN PAGE, DR. ERN						
RAILEY DR TED KALRELEISCH						
BAILEY, DR. TED KALBFLEISCH						

**TOPICS** Literature resources, ESR sign-up, nocardioform placentis summary of 2020 initiative, COVID impact & next equine survey, lab updates, equine biological passport, genetic diversity and more!

Contact: Holly Wiemers, holly.wiemers@uky.edu

## UK Ag Equine Programs to host 10<sup>th</sup> annual Equine Research Showcase virtually

By Holly Wiemers

LEXINGTON, Ky., (Nov. 17, 2020) – University of Kentucky Ag Equine Programs will host its 10<sup>th</sup> annual UK Equine Showcase virtually through four sessions over four dates in January and February 2021. The event will continue the "life journey" theme initiated last year and will emphasize weanling to yearling horses, presenting both completed and work-in-progress projects relevant to this age group.

"We are excited to once again put together an excellent set of lectures and continuing education featuring many of our colleagues," said Emma Adam, assistant professor and research and industry liaison at the Gluck Equine Research Center. ""The way our industry is helped through the resources we have at the University of Kentucky is unparalleled."

Due to the current pandemic, the event has moved to a virtual format. Organizers wanted to continue to provide information and continuing education opportunities in 2021 rather than postpone for a year. Recognizing that staying engaged for long periods of time via a virtual format is challenging, organizers chose to break up the annual event into several shorter sessions over the course of a few weeks.

Jan. 5, 6-7:30 p.m. EST, will focus on musculoskeletal issues and include the following topics and speakers:

- Bisphosphonates, NSAIDs and other medicines in the juvenile horse with Scott Stanley, professor of analytical chemistry at the Gluck Equine Research Center.
- Sesamoid bone maturation by the laboratory of James MacLeod, director of UK Ag Equine Programs and John S. and Elizabeth A. Knight chair and professor of veterinary science at the Gluck Center.
- Bone pathology in Wobbler's Syndrome with Jennifer Janes, assistant professor of anatomic pathology at UK's Veterinary Diagnostic Laboratory.

Jan. 19, 6-7:30 p.m. EST, will focus on nutrition and pasture topics and include the following information and speakers:

• Mineral requirements for a growing horse with Mieke Brummer-Holder, assistant professor in the Department of Animal and Food Sciences.

- Amino acids and protein synthesis in the growing horse with Kristine Urschel, associate professor in the Department of Animal and Food Sciences.
- UK Horse Pasture Evaluation Program information with Krista Lea, program coordinator, and Ray Smith, professor and extension forage specialist, both from the Department of Plant and Soil Sciences.

Feb. 2, 6-7:30 p.m. EST, will focus on parasitology, vaccination immunology and causes of mortality and include the following information and speakers:

- Vaccination, immunity and immune response in weanlings with David Horohov, chair of the Department of Veterinary Science, director of and Jes E. and Clementine M. Schlaikjer Endowed Chair at the Gluck Center.
- Parasitology as it pertains to weanlings and yearlings with Martin Nielsen, Schlaikjer professor of Equine Infectious Disease at the Gluck Center.
- Common(est) causes of mortality in this age group with Laura Kennedy, assistant professor and veterinary pathologist at the UK VDL.

Feb. 9, 6-7:30 p.m. EST will cover hot topics in a mini session format of 10 minutes each, with updates about equine research literature resources at UK, nocardioform placentitis summary from 2020, COVID-19 economic impact and the next equine survey, lab updates, Equine Biological Passport update, genetic diversity project, updates on equine surface research, important parasitology updates and more.

"This is a unique and special outreach event. The purpose is to showcase some of what is happening at the University of Kentucky in terms of scientific discovery and service efforts relevant to the young horse," MacLeod said. "Participants will hopefully gain new information they can apply to their programs, but importantly also a greater appreciation for some of the critical questions being addressed at UK, why these issues are important and where the cutting edge of research is on a number of very interesting topics. This annual program, now reaching 10 years, highlights our commitment to advance research, service and teaching for the benefit of horses and the equine community."

The UK Equine Showcase is open to veterinarians, owners and managers of all horse breeds or anyone with an interest in learning more about foals and horse management. Its virtual format means that this opportunity is open to attendees from across the U.S. and even world.

The cost to attend all sessions is \$25 until the early-bird registration deadline of Jan. 5. This package will include a PDF of the presentations and access to a recording of the sessions after the event has concluded. Attendees can also opt to attend only one or two of the sessions they



are interested in. Individual event registration will also be available for \$10 each. There are special rates for farms interested in having multiple employees attend. Students from any university can participate for free. Please contact <u>equine@uky.edu</u> for help in registering for those discounted or free sessions. Continuing education credit for veterinarians and veterinary technicians is pending approval by the Kentucky Board of Veterinary Examiners. Register at <u>https://www.eventbrite.com/e/10th-annual-uk-equine-showcase-virtual-event-tickets-123079454963</u>. Contact <u>equine@uky.edu</u> with questions about the event or with help registering.

UK is also accepting sponsor participation for the showcase. Presenting opportunities are available to participating organizations on a first-come, first-served basis. Email <a href="mailto:equine@uky.edu">equine@uky.edu</a> for details.

-30-

Writer: Holly Wiemers, 859-257-2226

UK College of Agriculture, Food and Environment, through its land-grant mission, reaches across the commonwealth with teaching, research and extension to enhance the lives of Kentuckians.

#### 2020 UK Equine Showcase

#### Friday, January 24

- 12:00 p.m. Registration
- 12:30 p.m. Welcome Dr. James N. MacLeod, UK Ag Equine Programs & Gluck Equine Research Center
- <sup>12:45 p.m.</sup> Epidemiology and Diagnostics The University of Kentucky Veterinary Diagnostic Laboratory: Who we are, what we do and what we see

Who we are and what we do Dr. Jennifer Janes, UK Veterinary Diagnostic Laboratory

What we see Dr. Rebecca Ruby, UK Veterinary Diagnostic Laboratory

The UKVDL: other duties Dr. Al Loynachan, UK Veterinary Diagnostic Laboratory

#### 1:45 p.m. Event sponsor informational talks

- 2:15 p.m. Break and poster viewing
- 2:30 p.m. Infectious Disease, Immunology and Parasitology focus

Vaccination of mares with an R. Equi Pili-based vaccine leads to the transfer of anti-pili antibodies to their foals *Dr. David W. Horohov, Gluck Equine Research Center* 

Development of innovative molecular tools to study equine infectious disease *Dr. Carrie Shaffer, Gluck Equine Research Center* 

Identification of factors contributing to equine proliferative enteropathy and *Lawsonia intracellularis* infection in horses *Dr. Allen Page, Gluck Equine Research Center* 

Parasite Control in Foals: Finding the Right Program Dr. Martin Nielsen, Gluck Equine Research Center Thank you to our sponsors!

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#### **SUPPORTER**







#### Saturday, January 25

8:00 a.m. **Registration** 

8:30 a.m. Nutrition focus

Introduction Dr. Laurie Lawrence, Dept. of Animal & Food Sciences

Microbial colonization of the neonatal GI tract Morgan Pyles, Dept. of Animal & Food Sciences

Mineral content of Central Kentucky pastures Ashley Fowler, Dept. of Animal & Food Sciences

Minerals: nutritional importance and assessment Dr. Mieke Brummer-Holder, Dept. of Animal & Food Sciences

#### 10:15 a.m. Break

#### 10:30 a.m. Musculoskeletal focus

Skeletal development and the relationship to adult orthopedic Issues Dr. Bruno Carvalho Menarim, Gluck Equine Research Center

Why understanding the biology of different cartilage tissue types may provide new therapeutic insights for joint cartilage lesions. *Dr. Emma Adam, Gluck Equine Research Center and UK Veterinary Diagnostic Laboratory* 

The role of genetic determinants of Cervical Stenotic Myelopathy (Wobbler Syndrome) Dr. Jennifer Janes, UK Veterinary Diagnostic Laboratory

Stem cells: what defines a stem cell, different types of stem cells and how donor age effects stem cell performance *Dr. James N. MacLeod, UK Ag Equine Programs & Gluck Equine Research Center* 

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#### 12:15 p.m. Lunch and time to visit posters and sponsors

#### 1:00 p.m. Event sponsor informational talks

#### 1:30 p.m. Genetics focus

Patterns in horse breeding Dr. Ernie Bailey, Gluck Equine Research Center

Genetic Testing at Gluck, 34 years of answering the question "Who's your (horse's) daddy?" *Dr. Kathryn Graves, Genetic Testing at Gluck* 

Neonatal Isoerythrolysis: The diseases, the cause and what you need to know about it *Dr. Emma Adam, Gluck Equine Research Center and UK Veterinary Diagnostic Laboratory* 

#### 2:45 p.m. Economic focus

Foal finances: Economic considerations of producing a foal from breeding to weaning for small breeders *Dr. Jill Stowe, Dept. of Agricultural Economics* 

#### 3:30 p.m. Event Concludes

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Contact: Holly Wiemers, 859-257-2226

#### UK Ag Equine Programs to Host 9<sup>th</sup> Annual Equine Showcase

By Holly Wiemers

LEXINGTON, Ky., (Nov. 20, 2019) – University of Kentucky Ag Equine Programs will host the 9th Annual UK Equine Showcase Jan. 24-25 at the Fayette County Extension office, 1140 Harry Sykes Way in Lexington.

The event will highlight the university's equine programs and relevant industry findings with an emphasis on the foal, from birth to weaning. The event will span two days: Friday, Jan. 24 from 12:30 to 5 p.m. with a networking happy hour following Friday's event and Saturday, Jan. 25, from 8:30 a.m. to 3:30 p.m. with lunch provided.

Topics for the showcase include epidemiology and diagnostics; infectious disease, immunology and parasitology; nutrition; musculoskeletal issues; genetics; and economics.

"This is a unique and special outreach event. The purpose is to 'showcase' some of what is happening at the University of Kentucky in terms of scientific discovery and service efforts relevant to young foals," said James MacLeod, director of UK Ag Equine Programs and Elizabeth A. Knight Chair within the Maxwell H. Gluck Equine Research Center. "Attendees will hopefully gain new information they can apply to their programs, but importantly also a greater appreciation for some of the critical questions being addressed at UK, why these issues are important and where the cutting edge of research is on a number of very interesting topics."

The UK Equine Showcase is open to veterinarians, owners and managers of all horse breeds or anyone with an interest in learning more about foals and horse management. The cost to attend is \$80 until the early bird registration deadline of Jan. 13. After that date, the cost will be \$100. Those prices are discounted to \$70 for early bird or \$90 for regular registration if two of more people from the same organization register. There are a limited amount of discounted tickets available for students who are interested in attending. Register at <a href="https://www.eventbrite.com/e/9th-annual-uk-equine-showcase-tickets-79577962829">https://www.eventbrite.com/e/9th-annual-uk-equine-showcase-tickets-79577962829</a>. Please contact equine@uky.edu with questions about the event or to register as a student.

Continuing education credit for veterinarians and veterinary technicians is pending approval by the Kentucky Board of Veterinary Examiners.

UK is also accepting sponsor participation for the showcase. Display opportunities are available to participating organizations. Please email <u>equine@uky.edu</u> for details.



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Writer: Holly Wiemers, 859-257-2226

UK College of Agriculture, Food and Environment, through its land-grant mission, reaches across the commonwealth with teaching, research and extension to enhance the lives of Kentuckians.

## **2019 UK Equine Showcase**

#### 8th Annual UK Equine Showcase January 26, 9 a.m.- 2:30 p.m.

A program highlighting the university's current equine programs and findings relevant to the industry.

Insects and Horse Health: What You Need to Know Dr. Zainulabeduddin Syed, Department of Entomology

**Important Equine Diseases Carried by Insects** Dr. Rebecca Ruby, Department of Veterinary Science

Vector Born Diseases Affecting Horses and Humans Dr. Peter Timoney, Department of Veterinary Science

Making Your Barn Horse Friendly and Insect Averse Dr. Morgan Hayes, Department of Biosystems and Agricultural Engineering

Managing Manure and Mud Dr. Steve Higgins, Department of Biosystems and Agricultural Engineering

> Ag Water Quality Act Tammy Brewster-Barns, Cooperative Extension

## For more information and to register.

Fayette County Cooperative Extension Office | 1140 Harry Sykes Way | Lexington, KY Contact us at equine@uky.edu or visit www.ca.uky.edu/equine



Ag Equine Programs College of Agriculture, Food and Environment

#### Kentucky Employee Reporting System Data for the Equine Program from 2016 to 2021 Statwide Data

2017							
2017	-	Contact w/	Hours of	Total Number	Number of producers who		
	Total Contat	Local	Mulitstate Effort	of Volunteers	incorporated best practices		
	Hours	Stakeholders	(hours)	Engaged	recommended by Extension		
	Data NA	Data NA		Data NA	1351		
2018	8						
		Contact w/	Hours of	Total Number	Number of producers who		
	Total Contat	Local	Mulitstate Effort	of Volunteers	incorporated best practices		
	Hours	Stakeholders	(hours)	Engaged	recommended by Extension		
	8610	67116	1321	4736	1026		
2019	<u>)</u>						
	Total Contat	Contact w/	Hours of	Total Number	Number of producers who		
	Hours	Local	Mulitstate Effort	of Volunteers	incorporated best practices		
		Stakeholders	(hours)	Engaged	recommended by Extension		
	9112	38209	925	2123	1345		
2020							
		Contact w/	Hours of	Total Number	Number of producers who		
	Total Contat	Local	Mulitstate Effort	of Volunteers	incorporated best practices		
	Hours	Stakeholders	(hours)	Engaged	recommended by Extension		
	5602	17681	1016	778	3752		
2021	1						
		Contact w/	Hours of	Total Number	Number of people who	Number of equine owners/	Number of equine owners/operators
		Local	Mulitstate Effort	of Volunteers	increased knowledge of horse	operators who demonstrates	who adopted best practices to improve
		Stakeholders	(hours)	Engaged	health, nutrition, and care	good animal health practices	or maintain animal nutriton by selecting
	Total Contat						feed based on ingredients, using body
	Hours						conditioning scores, use a complete
	ilouis						mineral supplement, use hay test
							analysis, and/or calculating
							supplemental nutrition for the life cycle
	2617	15328	283	2324	92405	686	603

#### Examples of Success Stories indicating impact

#### Saddle & Tack Fitting Clinic Teaches Efficient Measurement Methods for Riders

Saddle fitting sessions and measurement gauges are a costly part to owning a horse but properly fitting tack is extremely important for horse health and rider safety. Improper fitting saddles and tack can cause severe pain and discomfort to horses and result in accidents and injuries to riders. Most riders and horse owners do not have their horses or tack measured due to the high cost and inconvenience since tack stores do not have "fitting rooms" for horses. In response to this need, the Boone County ANR Agent collaborated with **Dr. Bob Coleman, UK Equine Specialist**, and Dr. Ron Leick, DVM, to host the Saddle and Tack Fitting Clinic for participants in person and virtually. Dr. Coleman discussed the importance of a properly fitting bridle and bit and taught participants ways to measure their horses and bridles with specialized tools and by using their hands as measurements. Dr. Leick demonstrated how a saddle should fit a horse correctly so it doesn't cause pain or discomfort which could lead to injury to the horse and/ or the rider. He used a saddle tech gauge to demonstrate how to measure a saddle and use it to measure a horse and then taught participants how to make a gauge at home using cardboard and a flexible measuring tape to ensure their saddle is the right size for their horse. Participants learned methods to measure their horses using household items so they could then purchase saddles and tacks that would fit their horse without hauling their horse to the tack store to "try it on". 100% of the participants responded that following the clinic they knew how to use household items to measure their horses and their saddles to check for proper fit and how to adjust bridles so the bit was positioned correctly in the horse's mouth. **This clinic saved the 20 participants approximately \$20,000 by teaching participants these tack measuring methods in addition to reduced rider injuries and vet expenses for injureed and sore horses that would require treatment.** 

#### Female Equestrian Health Consensus Statement

In 2018, Karin Pekarchik, MS, senior extension associate for distance learning, and Kimberly Tumlin, PhD, MS, MPH, assistant professor in the Department of Epidemiology, College of Public Health and the Equestrian Athlete Initiative director for research for the Sports Medicine Research Institute, cofounded the University of Kentucky Female Health and Wellness Community of Practice (CoP) to focus on equestrian health, inviting international researchers, instructors and practitioners in fields related to equestrianism to become members.

The purpose of the community of practice is to bring together equestrian researchers and industry practitioners to discuss the current status and future challenges of equestrian health and wellness and to serve as a centralized resource for communities, researchers and citizen scientists.

Collectively, that CoP drafted a consensus statement that also included proposals and recommendations. This international community of practice was an initiative of the University of Kentucky Female Equestrian Health and Wellness CoP.

#### Strengthening Extension's Outreach and Impact for Horse Owners

Educational programs that strengthen production skills of agriculture operations in Shelby County are a continued priority identified by Shelby County's Extension and Agriculture Councils. Equine operations had a market value of sales at \$3.7 million according to the 2017 Census of Agriculture. Extension continues to reach out to assist horse owners through programs that can improve their productivity.

UK Extension's Master Horseman is a multiple-session program that can be tailored to the needs of county horse operations. In November-December 2019, this program was

offered to participants in Oldham, Henry, Shelby, Spencer, and Trimble Counties. Our four-session program covered Pasture Management and Grazing Management; Feeding and Nutritional Disorders; Health and Vaccinations; Facility Design and Management; and Basic Equipment Needs.

Thirty participants attended one or more sessions of the Master Horseman program. Participants attending represented boarding operations, training and event operations, recreational horse owners, and 4-H youth participants. A follow-up evaluation was conducted in June 2020 to measure operation changes and improvements made by participants as a results of knowledge learned in Master Horseman. Participants' evaluation responses showed the following impacts:

41% of respondents had made changes and improvements to their grazing and pasture management practices. 24% of respondents had made changes and improvements to their facilities. An additional 10% indicated making changes in their feeding and veterinary practices.

Feedback from participants included the following:

"My facility was under construction during the Master Horseman course. I did add more paddocks due to what was discussed in class so that rotation is a part of my management plan."

"I particularly liked the hay box idea, and building one has saved on wasted hay in the paddock."

"My son completed the Master Horseman program, and this was a helpful credential to add to all of his scholarship applications.

#### **Equine Field Day**

Together with the Caldwell, Livingston, Trigg, and Crittenden county extension offices we hosted the annual UK Equine Field Day. As a state level event it was excellent event, it was a very quality program to bring to West. KY. Due to sponsors we were able to offer the event a no cost to the 60 plus attendees. Program participants learned about the unique grazing requirements of horses, opportunities for funding available through NRCS, the benefits to digestive aids and the availability of niche markets for horse people to fund their passions. The event was held at the Weber's Retired Horse farm.



#### Master Horseman Class

Henry County isn't known as an equine county, but horses are only second to cattle in regard to numbers according to the 2017 US Agricultural Census. Horse bring in over \$300,000 in income, but most horse farms in Henry County are for recreational purposes. With this knowledge, the Henry County Extension Office wanted provide the most up to date information for equine owners in the area.

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The last session of Master Horseman included a presentation on basic equipment needs. During the course of class discussion on this topic, we realized that horse owner participants of all types are seeking more information on the right equipment for their operations. This revealed that a topic we took for granted as a known is a clear need for horse owners – equipment needs will be addressed in future Master Horseman programs.

#### From Equine Biosecurity to COVID-19 Preparedness--One Health in Action

Hands-on trainings and in-person lectures on equine biosecurity always emphasize the basics of cleaning and disinfection, traffic control, isolation and quarantine. However, in the past several years, specific content on personal protective equipment (PPE) has also been included as I found a lack of understanding between different masks, gloves and

coveralls by audiences, both veterinarians and animal owners. I taught this material in response to issues evolving from the 2014 Ebola virus outbreak and biosecurity measures successfully implemented to contain the virus from US hospitalized patients at referral centers. This is a working example of the One Health Initiative. Information learned from a human disease outbreak was directly implemented into veterinary and animal owner trainings. Hopefully those individuals are utilizing that knowledge to properly use PPE in the midst of the COVID-19 pandemic to protect themselves and others.



# UK Horse Pasture Evaluation Program 2020 Report

#### **History and Objectives**

The UK Horse Pasture Evaluation Program began in 2005 as part of Equine Programs to develop stronger ties with Kentucky's horse industry. The program focuses on the following objectives:

- Providing detailed pasture management recommendations to horse farm owners and managers.
- Improving pastureland by increasing forage quality and quantity and reduce the need for stored feeds, such as hay and grain.
- Assessing the potential risk of fescue toxicity for broodmares on pastures.
- Providing undergraduate students with a new appreciation for agriculture and the horse industry.

#### By the Numbers

2020 is a year we will not soon forget. And, despite the challenges of the year, the UK Horse Pasture Evaluation Program had another successful year. We were limited in the number of students we could hire, 2 instead of 6, and the laboratories that run our tall fescue endophyte and ergovaline samples were also limited in their capacity. Therefore, participating farms were asked to limit their pasture sampling to just 15 pastures per farm. We want to thank all of our farms for their cooperation and understanding. Because of this, we were able to service all 29 of the farms that signed up this year, which is the highest total since the program started in 2005.

UK Horse Pasture Evaluation Data						
2020 2005-202						
Total Evaluations:	29	280				
Total Farm Acres:	8,920	65,859				
Acres Evaluated:	2,664	25,735				
Total Pastures:	238	3,281				
Counties:	9	25				

#### Preparations for the 2021 UK Horse Pasture Evaluation Program sampling

2020 brought many changes to our lives, and the UK Horse Pasture Evaluation Program is no different. Here is a highlight of some the things that will be different for us in 2021:

• In the summer of 2020, the UK Forage Extension program purchased a GPS enabled handheld device, capable of data input, geotagged photos, and tracking. This upgrade significantly increased the accuracy of GPS data collection, as well as streamlined the data analysis process. With the success of this test run, several more devices will be purchased for the 2021 sampling season and the UK Horse Pasture Evaluation Program will be paperless in 2021!

• Based on research from 2019 summer intern Kelsey Hargadon, we have transitioned our sampling method to the "Occupancy Method". This replaces the white PVC squares with metal grids, 30" x 30", that contain 25 smaller squares. For each square, the most dominate species is recorded. This change reduces the person to person variation in our traditional visual evaluation method and also makes training far simpler for new students. Additional research is underway to further validate this method.

• New services in 2021 include Assisted Soil Sampling. Farms requesting this service will receive a soil sampling kit that includes a soil probe, bucket, sample bags and labels, and a map of each field with sample locations marked. Farms will collect soil samples using the included supplies and instructions, and samples will be delivered to the local county extension office to be analyzed by UK Regulatory Services.

The county agent will then provide the soil test results and recommendations to the farm. Our goal to help farms enrolled in the Horse Pasture Evaluation Program better utilize the services provide by their local extension office. We encourage any farm not enrolled in our Pasture Evaluation Program to contact their local county extension agent for advice on soil sampling and how to submit soil samples in their respective county.

• For larger farms, we will be offering a streamlined sampling method, the UK Horse Pasture Health Score Card. This method provides a quick overview of pasture health with less detailed information than our grid evaluation method. The Pasture Health Score Card provide a useful evaluation option for larger farms on their non-broodmare fields.

• You may now enroll your farm for sampling in 2021 online by visiting <u>https://forages.ca.uky.edu/EQUINE.</u>



2020 intern and soon to be graduate student Echo Gotsick testing out the new GPS handheld over an occupancy grid.

#### Tall Fescue eradication and improved management increases profits for Central Kentucky Thoroughbred Farm

A central Kentucky thoroughbred horse farm experienced a high incidence of fescue toxicosis symptoms in pregnant and foaling mares during early 2017. The UK Horse Pasture Evaluation Program was contacted by the farm at the advice of the consulting veterinarian. After a farm visit, the farm agreed to have their pastures evaluated. Fields were sampled for species composition, endophyte infection level, and ergovaline content.

After being presented results showing damaging levels of infected tall fescue, the farm began an aggressive program of fescue eradication in some fields and complete re-establishment in two others. They also changed their pasture usage for foaling mares in the 2018 season to avoid exposure to toxic tall fescue.

As a result of the accurate information on fescue presence and recommended fescue eradication in selected pastures, the farm was able to avoid exposing pregnant mares to high levels of toxic tall fescue. As a result, the farm experienced no difficulty in foaling (dystocia) and fewer thickened placentas (red bags) and no foal losses due to tall fescue in 2018. Dystocia and thickened placentas are indicators of fescue toxicity in pregnant mares.

Fewer fescue-related foal deaths and associated syndromes resulted in four more live foals and greatly reduced veterinary costs in 2018 compared to 2017. The economic impact of having four more foals was estimated to be \$428,000 using the 2015-17 three-year average Keeneland September yearling sale figures.

Similar results were observed for the 2019 foaling season, during which the farm foaled out approximately 20% more mares. Conservative estimates of the total value of the anticipated foal sales and savings in veterinary costs exceeded \$1,000,000 across both years.

Finally this success was repeated with the 2020 foaling season. The total economic benefit to this farm from adopting UK recommendations exceeds \$1.4 million dollars over the three foaling seasons.

#### **UK Receives National Conservation Innovation Grant for Horse Pasture Work**

...



Webers Retired Horses LLC May 24, 2019 · 🚱

Here is a nice picture of progress. The water trough shown in the bottom left corner is fed by the new pond. The geldings: Tanner, Cappucino, Chopard, Marcus. Sage, and Jack are grazing in the background on a breezy summer afternoon.



Weber's Retired Horses shared the success of their participation in the 2016 RCPP on social media and will be participating in the 2020 CIG grant.

The University of Kentucky Department of Plant and Soil Sciences was awarded a Conservation Innovation Grant at the beginning of the year to study the ecological and economic impacts of resource conservation on horse farms. Funded by the Natural Resource Conservation Service (NRCS), which is part of the U.S. Department of Agriculture, this project was chosen among proposals nationally, all competing for a select few funding slots, and was fully funded with a budget of more than \$350,000 over three years.

Ray Smith, PhD, professor and extension forage specialist, and Krista Lea MS, coordinator of UK's Horse Pasture Evaluation Program, both members of plant and soil sciences within UK's College of Agriculture, Food and Environment, will lead the project. They have partnered with Jill Stowe, PhD, associate professor in agricultural economics at UK, her graduate student Sarah Sebbane, and Kathryn Payne, PhD, applied forage systems specialist from Virginia Tech.

Smith and Lea plan to visit farms that participated in a previous NRCS cost share enhancement grant in 2016 and collect on-farm measurements such as soil nutrients, plant composition, percent cover, forage quality and yield. Stowe and Sebbane will use the data as well as survey data from these farms to quantify the economic impacts of these improvements.

According to Lea, the research team anticipates some of the economic impacts to include: 1) less hay will be required because improved pastures give higher forage yields; 2) vet

bills will be reduced by the construction of heavy use areas by reducing the incidence of hoof bruises and/or abscesses; and 3) fertilizer requirements will be lower because better manure distribution from improved grazing..

"It might seem difficult to justify the upfront expense associated with adopting conservation practices when it comes to pasture management, especially for non-commercial equine operations," said Stowe. "However, we hope to be able to educate horse farm owners about the economic benefits of adopting these practices through short- and long-run cost savings. By doing so, we can contribute to the increased rate of adoption of these environmentally beneficial practices."

Payne will work closely with UK to implement several practices on five farms in Virginia. In addition, Pennington Seed has agreed to donate seed for use in the Virginia pasture renovations.

"It's easy to say that something only works in Kentucky because of its unique horse industry," Smith said. "Demonstrating these practices and economic benefits in areas with a very different equine population is crucial for having impacts across the country."

"The 2016 grant was a great success, with many more farms interested than we could accommodate, and successful conservation practices implemented. We hope to build on that, and put some real numbers to those practices. The hope is that these practices, and the benefits we can show from them, will encourage other farms to implement them as well," said Lea.

Cost share programs are available to horse farms in Kentucky through NRCS and the Kentucky Governor's Office of Ag Policy. These programs vary by county, so the best way to stay up to date is to have regular contact with your local NRCS and Cooperative Extension offices. Many offer newsletters to keep people informed of approaching deadlines or new programs. NRCS is also currently seeking proposals for onfarm conservation and soil health test projects. Learn more at\_ https://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/ newsroom/releases/?cid=NRCSEPRD1555070.

UK College of Agriculture, Food and Environment through its landgrant mission, reaches across the commonwealth with teaching, research and extension to enhance the lives of Kentuckians.



*Thick, lush grasses grow on the renovated pasture at Spendthrift Farm. Photo by Katie Pratt, UK agricultural communications.* 

## Pasture renovations will help horse farm implement rotational grazing

Spendthrift Farm is one of Lexington's iconic Thoroughbred breeding and racing operations. Due to recent expansion, the farm wanted to renovate some unused fields and develop them into pastures to use in a rotational grazing system. They turned to forage experts with the Horse Pasture Evaluation Program in the University of Kentucky College of Agriculture, Food and Environment for their recommendations.

"The Horse Pasture Evaluation Program is a good tool for all horse farms to use," said Robbie Moreland, Spendthrift maintenance manager. "It gives us options and guidelines that we can use to develop the land to suit our needs."

Spendthrift Farm has worked with Krista Lea, UK research analyst, and Ray Smith, UK forage extension specialist, for a number of years to evaluate and renovate fields on their main farm through the program.

"They have done a good job of implementing grazing rotations, as well as removing fescue from some key broodmare fields and having good success with overseeding," Lea said. "This was our first endeavor with them trying to completely re-establish a pasture."

The pasture renovation that began in summer 2019 includes 130 acres of an adjoining property the farm purchased a few years back but had not fully incorporated into their operation.

"The land was physically rough, and the grass was consumed by weeds. We decided the best thing to do was just to start completely over again and develop a grass pasture," Moreland said. Farm management wanted to establish pastures that were healthy and beneficial for their horses and good for the natural environment. In 2019, they opted to kill off the existing vegetation using tillage, rather than a traditional field burndown with glyphosate. They reseeded the fields with a mixture of bluegrass, orchardgrass and perennial ryegrass. Even though Central Kentucky experienced a drought last fall, the seed germinated and created a lush stand of grass.

"We would like to keep these pastures lush," Moreland said. "To do this, we are going to use it as a pasture rotation with our main farm. The new pastures and barn will be used for our mares and weanlings."

Spendthrift Farm is just one of the farms the Horse Pasture Evaluation Program advises each year. From its beginnings in 2005 to 2019, the program conducted more than 250 evaluations on horse farms of all sizes and breeds. In 2020, Lea and her student interns have evaluated nearly 30 farms. This is the highest number of operations they have serviced in any one year.

The interview with Robbie Moreland and Krista Lea can be found on the UK Forage Extension website at <u>https://forages.ca.uky.edu/EQUINE</u>.



Photo by Dr. Jimmy Henning.

#### **Looking Ahead**

Enrollments are now being accepted for 2021. Please contact Program Coordinator Krista Lea for more information.

#### Resources

UK Forage Website: forages.ca.uky.edu

## Find your local county extension agent: extension.ca.uky.edu/county

UK Equine Programs: equine.ca.uky.edu

UK Horse Pasture Evaluation Program c/o Krista Lea N-222C Ag. Science Center North Lexington, KY 40546 (859) 257-0597









College of Agriculture, Food and Environment Horse Pasture Evaluation Program

http://forages.ca.uky.edu

## It starts with us

The College of Agriculture, Food and Environment is an equal opportunity organization.

# Pasture Evaluation Program Students



2017 Pasture Evaluation Team (left to right): Olivia Dombi, Anna Intartaglio, Becca Puglisi, Savannah Neese and Kelly Hagan. Not pictured: Sydney Beidleman



2016 Pasture Evaluation Team (left to right): Savannah Taylor, Julia Becker and Thane Anderson

**Undergraduate students trained** 2005-2021: 57 Asbury University (29) University of Kentucky (20) Other (8)



# Wise Investments for Pasture Management

Dr. Ray Smith and Krista Lea, MS University of Kentucky, Dept. of Plant and Soil Sciences UK Horse Pasture Evaluation Program



# Google "KY Forages" for more info.



Events People County Agents KY Forage News Publications

#### UPCOMING EVENTS

For the latest happenings with Forages at the UKREC check out our videos on our Forage YouTube channel https://www.youtube.com/c/KYForages



Click HERE to subscribe to the Newsletter

January 2021 (pdf version)

- If Cows Could Talk
- Extension Agents Host Virtual 14th Annual Pastures Please!! · Pub of the Month: Strategies for Reclaiming Hay Feeding Areas (AGR-255)
- Hay Export Market Status and Alfalfa Acreage
- Developing Heifers on Novel Entophyte Tall Fescue
- FORAGE TIMELY TIPS FOR JANUARY











Soil Sampling and Nutrient Management in Horse Pastures

G.J. Schwab and M.W. Piersawl, Plant and Soil Sciences

Tools

COOPERATIVE EXTENSION SERVICE - UNIVERSITY OF KENTUCKY COLLEGE OF AGRICULTURE, LEXINGTON, KY, 40546

L orse pastures are fertilized to ensure a reliable supply of **P**energy, protein, and other nutrients for a long season of grazing. Management of plant nutrients maintains a balance of improved grasses and legumes and suppresses many pasture weeds. Properly fertilized pastures look good and harm neither animals nor the environment.

The most important part of obtaining fertilizer recommendations is collecting a representative soil sample to send to the lab. Soil test results and fertilizer recommendations are based solely on a few ounces of soil submitted to the lab for analysis, which are assumed to represent several million pounds of soil in the field. If this sample does not reflect actual soil conditions, the results can be misleading and result in costly over- or underfertilization.

#### Timing



Fields should be sampled every two years. If you apply horse muck and other manures to your fields, you should sample annually, because manures rapidly raise soil phosphorus, potassium and zinc levels.

A soil probe, auger, or

spade are the tools need-

ed to take the individual

cores that make up the field

sample. The spade sample



Figure 1. A soil probe, auger, or spade should be used in sampling soils. The spade sample (shown in the center of the picture) should be trimmed as shown with a knife.

should be trimmed with a knife. (Figure 1). You will also need a





AGR-200

# **Establishing Horse Pastures**

COOPERATIVE EXTENSION SERVICE - UNIVERSITY OF KENTUCKY COLLEGE OF AGRICULTURE, LEXINGTON, KY, 40546 ID-147



Kentucky and surrounding states are Reknown for grass pastures and horses. Pastures supply nutrients, provide hoof support for exercise, control erosion, and add to the aesthetic value of horse farms. The ability to establish and manage horse pastures is therefore important to horse owners.

Horses graze closer than cattle and tend to repeatedly graze the same areas of a pasture, so desirable forage plants in a pasture can be reduced or eliminated. Hooves can also damage pastures, even

## Establishing Horse Pastures

Ray Smith, Garry Lacefield, Laura Schwer, and William Witt, Plant and Soil Sciences; Robert Coleman and Laurie Lawrence, Animal and Food Sciences

#### Basic Establishment Requirements

The following recommendations will increase your chances of success whether you are seeding all or part of a pasture.

Apply any needed lime and fertilizer amendments. A current soil test will indicate the amount of lime, phosphorus, potassium, and other nutrients (except for nitrogen) needed for the species to be seeded. Contact your county extension agent on how to properly take a soil sample or see the UK publication *Soil Sampling and Nutrient Management in Horse Pastures* (AGR-200, www.uky.edu/ Ag/Forage under "Publications").

High-quality seed has high rates of germination and is free of contamination from seed of other crops or weeds. Look for this information on the seed tag and remember that a blue certified seed tag is a guarantee of seed quality and purity.

IK

KENTUCKY

College of Agriculture

When buying tall fescue seed for pasture used by pregnant mares, make sure that the tag clearly states that this variety is endophyte-free or low endophyte (usually less than 5 percent). If this information is not clearly stated, assume that the tall fescue seed is infected, and **do not use** in pastures to be grazed by pregnant mares. The new novel endophyte tall fescues contain a non-toxic endophyte which helps the plant survive but does

Species	Seeded alone (Ib/A)	In mixtures (lb/A)	Optimum seeding dates	
E-a or Novel Tall Fescue	20 - 40	10 - 20	8/15 - 9/15	
Orchardgrass	15 - 30	10 - 15	8/15 - 9/15	
Kentucky Bluegrass	15 - 30	10 - 15	8/15 - 9/15	
E-a Perennial Ryegrass	20 - 40	5 - 15¢	8/15 - 9/15	
White Clover		1 - 3	Winter <sup>b</sup> , 2/15 - 4/15, 8/15 - 9/15	

<sup>a</sup> Endophyte-free

<sup>b</sup> Winter seeding of clovers, often called frost seeding, can be made on closely grazed or mowed pastures in late January or February.

<sup>c</sup> Never seed perennial ryegrass more than 25% of a seeding mixture. Ideally, only 10 to 15% perennial ryegrass is needed to provide quick cover without outcompeting the desirable long-term perennial grasses.

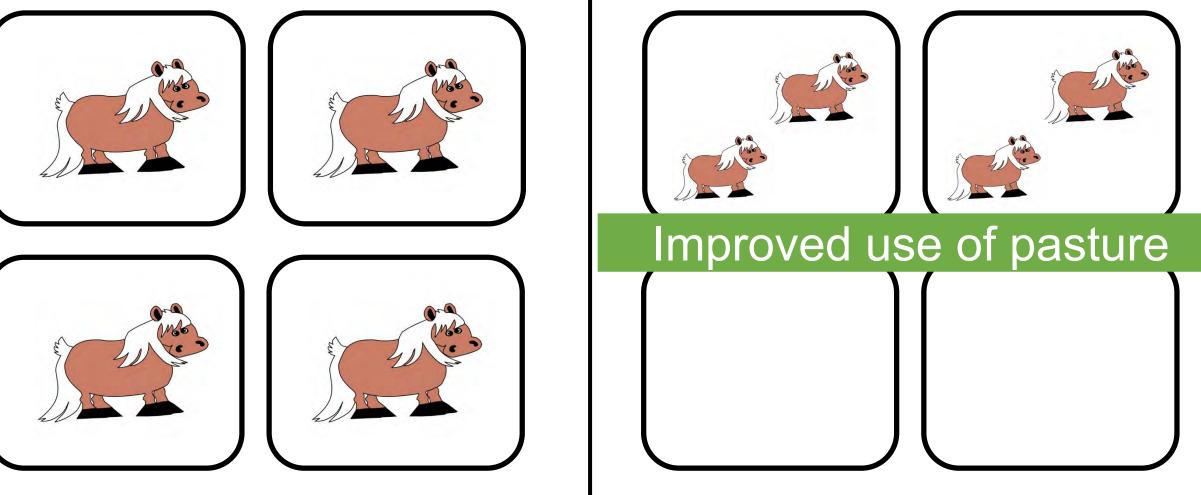


# How to Rest Pastures

- 1. Graze down to 3-4 inches
- 2. Remove horses; mow to 4-5 inches to even out pasture height if needed
- Allow pastures to rest 2-4 weeks or regrowth to 8-10 inches. Mow above grasses to remove weeds if needed
- 4. Return horses to grazing



## **Continuous Grazing**



Rotate every 2-3 weeks

**Rotational Grazing** 

Agriculture, Food and Environment

## **Improving Kentucky Horse Pastures**



University of Kentucky College of Agriculture, Food and Environment © Cooperative Extension Service

Chris D. Teutsch, Krista L. Lea, R.J. (Bob) Coleman, and S. Ray Smith, University of Kentucky



Well managed pastures can provide a nutritious and inexpensive feed source.



#### **Pasture Management**

For many horses, quality pasture can provide almost all nutrients needed for maintenance or light work for much of the year. Pasture reduces the cost of keeping horses while providing safe footing and minimizing impacts on the environment. Below are some guidelines for improving pastures.

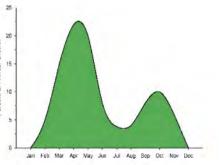
**Plan to utilize spring and fall pasture growth.** Kentucky pastures are dominated by cool season species such as tall fescue, Kentucky bluegrass, orchardgrass and white clover. These species grow rapidly in the spring and fall. Design grazing plans to utilize this natural flush of growth.

**Soil sample every 2-3 years.** Soil nutrients play a key role in pasture productivity and persistence. Soil tests recommend needed additions of phosphorus (P), potassium (K) and lime (adjusts pH) based on what is needed.

**Apply nitrogen in the fall.** Unlike hay fields that should be fertilized in the spring to boost yield, most horse pastures should be fertilized in the fall. One to two applications of nitrogen (40-60 lbs/acre) in the fall will boost fall production, root development and winter survival.

**Control weeds that limit pasture productivity.** Successful weed control includes identifying major weeds, selecting herbicides that are proven to control those weeds and applying at the correct time of year for the targeted species. A thick stand of desirable forages improves long term weed control. Always follow herbi-





Cool season grasses grow best in the spring and fall, summer growth is limited by high temperatures.



Fall nitrogen extends fall grazing, boosts winter survival and encourages early spring green up.

# Example Farm Woodford County

	Ground cover estimates of percent species composition							%TF in	Ergovaline in
	Tall	KY Blue-	Orchard-	White		Bare	Ergovaline	available	Available
Field	Fescue	grass	grass	Clover	Weeds	Soil	(ppb)	forage	Forage (ppb)
Field A	5	20	27	0	8	41	559	10	54
Field B	20	28	12	0	11	30	499	33	166
Field C	8	4	6	0	3	79	2870	44	1276
Average	11	17	15	0	1	50	1309	29	<b>4</b> 99

Agriculture, Food and Environment



# Mare Reproductive Loss Syndrome MRLS

- After the second outbreak of MRLS, in 2001, UK realized a need in the horse industry in Kentucky
- Since then, UK has been developing stronger ties with these farms in the
  - areas of
    - Applied research
    - Extension
- Credit to the following:





# Identifying Tall Fescue

# Tall fescue makes up 23% of a pasture (UK Horse Pasture Evaluation Program data, 2005-2007)

Tall Fescue	KY Bluegrass	Orchardgrass	White Clover	Weeds	Bare Soil
23%	26%	11%	7%	21%	11%
L		7		· · · · · ·	

68% Edible Forages TF = 35% of the total diet

32% are unavailable to the animal



# Tall Fescue Testing

Pd. #	Tall Fescue (%)	Edible Forages (%)	Unavailable Pasture (%)	Endophyte (%)	Ergovaline (ppb)	Ergovaline in Available Forages (ppb)
1	23	45	30	97	1000	338 💢
2	35	25	40	94	113	66 🗸
3	40	37	23	23	175	91 🗸
4	9	13	78	81	600	245 💢
5	7	74	19	88	1000	86



# **UK Horse Pasture Evaluation**

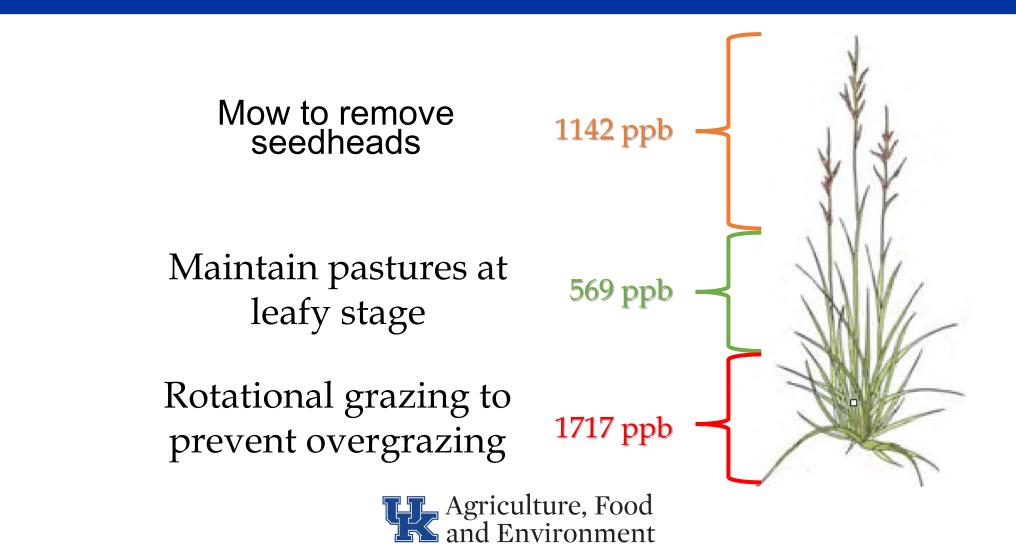
- Began in 2005
- 228 Evaluations in 25 counties
- Representing 48,000
   acres



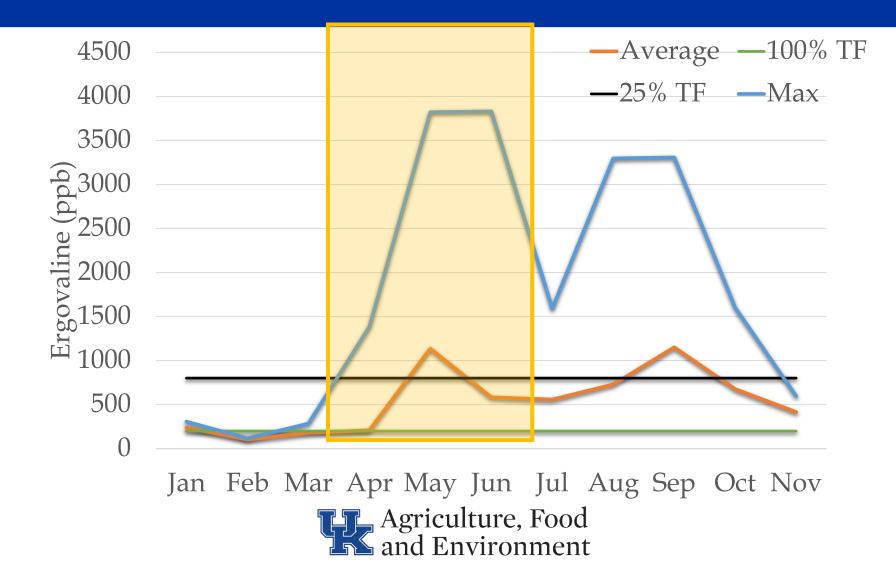


Agriculture, Food and Environment

## Mitigating Tall Fescue - Reducing Ergovaline in the Pasture



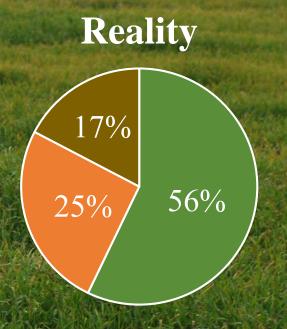
# Mitigating Tall Fescue



# **Evaluating Pastures**

## Ideal

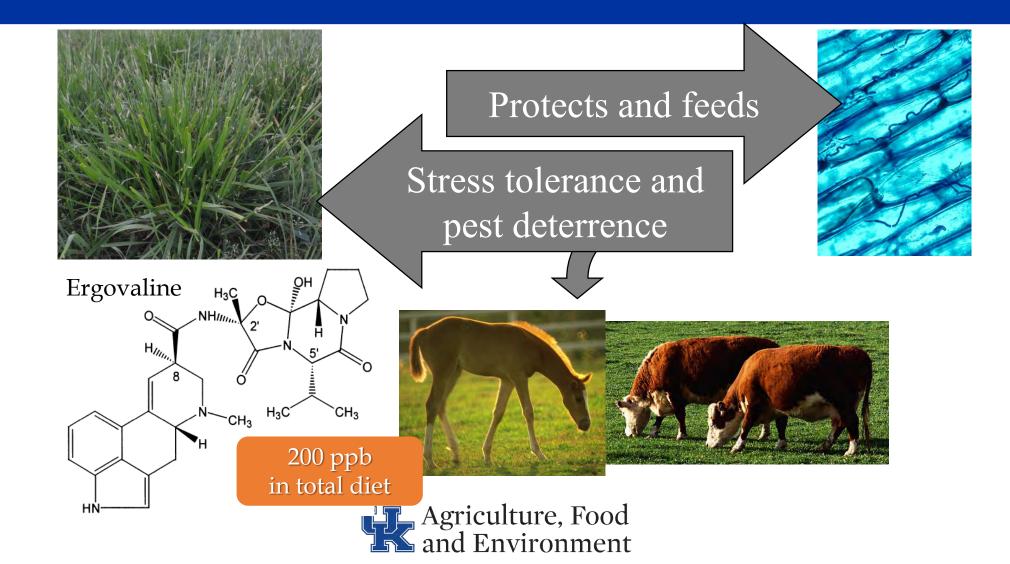
- Mixture of cool season grasses:
  - tall fescue
  - orchardgrass
  - KY bluegrass
  - white clover
- < 10% weeds
- < 10% bare soil</li>



## □ Desirable Forages □ Weeds □ Bare Soil

Data from the UK Horse Pasture Evaluation Program

# **Plant/Endophyte Interaction**



## Join us for the 12th annual

Appendix Core Area 5.c

# **Pastures Please!!**

...hosted by UK Cooperative Extension in conjunction with UK Ag Equine Programs

**February 21, 5:30-8 p.m.** Fayette County Extension Office 1140 Harry Sykes Way, Lexington, Kentucky

#### **PROGRAM**

5:30 Refreshments 5:45 Welcome 6:00 Pasture Health, Dr. Ray Smith 6:45 Controlling Foxtail & Buttercup, Dr. Bill Witt 7:15 Plants that Shouldn't be in Your Pastures, Dr. Megan Romano

#### **THANK YOU TO OUR SPONSORS**

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>  Cooperative Extension Service

Register via this QR code or by calling (859) 257-5582.





Ag Equine Programs College of Agriculture, Food and Environment

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#### A Sample of Success Stories from UK Extension Specialists

#### An Educational Opportunity for Horse Owners

Author: Bob Coleman

Planning Unit: Animal and Food Sciences

Major Program: Equine

Outcome: Intermediate Outcome

#### An Educational Opportunity for Horse Owners

Developing a program where horse owners could attend to get the latest information on horse care was a challenge the Northern Kentucky Network took seriously. Starting in 2016 they embarked on what was called the Equine Conference in Northern Kentucky. The conference was developed through a partnership of horse owners from the network, ANR agents from Kenton, Campbell, and Boone Counties along with the UK Extension Horse Specialist. The concept was to develop a program for horse owners that provide them with the latest information on how to care for their horses.

The program committee uses surveys and their own experiences to determine the topics for the conference and then challenge the agents and specialist to find the best speakers to present at the conference. With the wealth of industry professionals in Kentucky and neighboring states there have been strong programs the last three years that incorporate industry leaders, top veterinarians, and researchers from the University of Kentucky. The willingness of the presenters to participate has made this conference the success it is.

While the original thought was for the adult horse owner as the focus group early on there was interest from the youth involved in the industry. To meet that demand a half day program was developed for the youth which has quickly grown into a full day program much like the adult program. For both groups a coordinating committee works to develop the topics for each session and then speakers are approached.

Each year the conference has grown in numbers and attracts horse owners both from the local area but across the state and into neighboring states. The success can be attributed to the collaboration between the leadership of the Northern Kentucky Horse Network, UK Cooperative Extension at the county and campus level and the industry presenters who give of their time to bring new information to horse owners wanting to learn.

There is that saying "if you build it, they will come" and the Equine Conference committee has built something that the horse owners wanted and they certainly have come youth and adult alike. The committee is looking forward to the 4<sup>th</sup> Annual Equine Conference in Boone County

**Equine Extension Summit 2018** 

Author: Bob Coleman

Planning Unit: Animal and Food Sciences

Major Program: Equine

#### Outcome: Long-Term Outcome

In 2012 a survey of the Kentucky Equine industry was completed by the University of Kentucky. The survey reported that there were 35,000 horse operations across the state and that of the 240,400 horses each of the 120 counties had horses and owners. While there are horses and horse owners across the commonwealth how can those people be served by cooperative extension.

To try and answer that question an Equine Summit was held in December of 2018. The program was developed and hosted by a committee of county Ag agents, and extension faculty from across CAFÉ. The goals of the summit were to look at what was currently available and then to address the opportunities and challenges of developing equine extension programs across the state.

Over 100 ANR and 4-H agents along with industry leaders from their respective counties participated in the summit at either Mercer or Daviess counties. The discussions were facilitated by Dr. Lori Garkovich (recently retired from UK).

The materials discussed were gathered, summarized and presented by the organizing committee to the Equine Programs and the Equine Programs Agent working group. From all these efforts actionable items were developed that focused on either ANR or 4-H level programing. To date a number of the items are in the implementation stages and new programs and resources will be the result.

The process started by listening to the challenges and opportunities expressed by those attending the summit. Their involvement has led to new ideas and renewed enthusiasm to develop equine extension programs for horse owners across the commonwealth.

Thanks to the committee of Linda McClanahan, Don Sorrel, Drs. Peter Timoney, Morgan Hayes, Amy Lawyer, Fernanda Camargo, Emma Adam, Ray Smith and Bob Coleman.

#### **Equine Mini Series**

Author: Fernanda Camargo

Planning Unit: Animal and Food Sciences

Major Program: Equine

#### **Outcome: Initial Outcome**

The Equine Mini Series was offered at the state level led by 4-H agents Mary Jane Little and Deana Reed and Extension Equine Specialist Dr. Fernanda Camargo. The program boasted educational topics ranging from farrier demos and diseases to forage and pasture health. Specialists in these fields presented over the span of two weeks, with 120 youth & certified volunteers registered. The audience enhanced their knowledge and engaged with presenters throughout the duration of the series. This showed an intermediate outcome for sustaining certified volunteers through recertification continuing education hours and also provided educational hours for 4-H members to count towards their 4-H horse project. The evaluations were conducted through Qualtrics surveys and shows a 22.7% increase of correct answers from Part 1 in differentiating from pre and post evaluation. In Part 2, we saw a 33.3% increase of correct answers when comparing the pre and post evaluations.

#### Teaching STEM Horse Lessons to 4th Graders

Author: Fernanda Camargo

Planning Unit: Animal and Food Sciences

Major Program: Equine

Outcome: Initial Outcome

I took a sabbatical in The Fall of 2019. I used this time to develop a STEM lesson plan to teach math to 4th grade students, using the horse as a model. The goals were 1/ to introduce horses to a group of kids that might otherwise not have a chance to learn about them, 2/ to spread a message of good will regarding agriculture in general, 3/ to exalt Kentucky's flagship industry, and 4/ to recruit youth to join the 4-H Horse Program or other 4-H Programs in Kentucky.

In July and August, I contacted all 4-H Youth Development County Agents, and asked to be put in contact with the school teachers and schools they usually work with. In addition, I contacted all principals and 4th grade teachers for Fayette County's Public Schools directly, and spent the remainder of that time developing the lesson plan (with the help of Dr. Rebekah Epps, some horse industry professionals, as well as other UK colleagues), building the materials that go with it, and explaining the concept to teachers.

The lesson plan consisted of teaching students about many aspects of agriculture, teaching about Secretariat and horses in general, measuring Secretariat's stride length and comparing that to each of the student's own stride length at the walk and jog, applying multiplication, division, and fraction, and, finally, learning about other ways we use math in agriculture. The lesson plan is easy to be replicated, and I have offered to share it with county agents.

From September to the end of school semester in December, I taught the lesson plan to 934 4th grade students, in 31 classrooms, in 9 counties. The students and teachers really enjoyed the lesson. They were, obviously, in awe of the magnificence of Secretariat, were eager to learn more about horses, and were really engaged with the hands-on activities I had for them.

Some teachers have requested that we offer this lesson every year, and other teachers asked for a "part 2" lesson for the Spring semester. Some of the kids that attended the lesson contacted their extension office and were interested in joining the 4-H Horse Program in their counties. We had some plans for 2020b(Central Kentucky Horse Farm Experience that was supposed to take place in May 2020), but with COVID, our plans had to be postponed. Hopefully, we will be able to deliver the lesson again in 2021, and start to plan for the follow-up, part 2, lesson.

We have received positive feedback from agents, leaders, and parents regarding the Equine Mini Series and how it has been very helpful for youth and leaders to earn hours while COVID restrictions for gathering are still in place.

**Building Kentucky Equine Extension** 

Author: Linda McClanahan

Planning Unit: Mercer County CES

Major Program: Equine

#### Outcome: Intermediate Outcome

In an effort to increase equine extension programming, the ANR agent served on a planning committee for the biennial Equine Summitt Committee. Previous summits have focused on research and teaching. Through discussion with equine faculty and agents, plans were developed to host 2 Equine Summits focused on equine extension work. The intent was to highlight some of the great work already happening in KY, determine current challenges and opportunities for equine extension work and develop a plan to build a better equine extension program for KY. These were held in Mercer and Daviess counties and after the summit question responses were summarized, reviewed by the committee and broken into actionable items. These were presented both at the Equine Seminar to the department and to the ANR and 4H YD agents serving on the Equine Agent Working Group. Agents made recommendations for priority areas and provided feedback on the actionable items. Work is now being carried out to implement these items and work toward developing new equine extension programs.

The Equine Agent Working Group has met twice to divide and accomplish goals set through the Equine Summits. Significant work includes new publications from equine extension specialists, more agents becoming involved in equine extension programming, expanded agent training and improved marketing of equine extension. In addition, the Mercer County ANR Agent now serves as co-chair for the Agent Working Group.

Fescue eradication and improved management increases profits for Central Kentucky Thoroughbred Farm

#### by Ray Smith

Planning Unit: Plant and Soil Sciences

#### Major Program: Forages

A central Kentucky thoroughbred horse farm experienced a high incidence of fescue toxicosis symptoms in pregnant and foaling mares during early 2017. The UK Plant and Soil Science Forage Group was contacted by the farm at the advice of the consulting veterinarian. After a farm visit, the farm agreed to a program of pasture evaluation. Fields were sampled for species composition, endophyte infection level, and ergovaline content. After being presented results showing damaging levels of infected tall

fescue, the farm began an aggressive program of fescue eradication in some fields and complete reestablishment in two others. They also changed their pasture usage for foaling mares in the 2018 season to avoid exposure to toxic tall fescue.

As a result of the knowledge of fescue presence and fescue eradication in selected pastures, the farm was able to avoid exposing pregnant mares to toxic tall fescue. As a result, The farm experience no difficulty in foaling (dystocia) and fewer thickened placentas (red bags) and no foal losses due to tall fescue in 2018, 2019 or 2020. Dystocia and thickened placentas are indicators of fescue toxicity in pregnant mares.

Fewer fescue-related foal deaths and associated syndromes resulted in four more live foals and greatly reduced veterinary costs in each year compared to 2017. The economic impact of having four more foals in the 2021 foaling season was estimated to be \$471,544 using the 2019-2020 three-year average Keeneland September yearling sale figures. The total economic benefit to this farm from adopting UK forage management recommendations exceeds \$1.87 million dollars over the four foaling seasons.

In a related outcome, this farm has expanded by purchasing an additional 200 acres to give their existing pastures more rest. These pastures will be sampled for endophyte presence and ergovaline concentration and mares will be stocked accordingly. The farm manager credits the UK Equine Pasture Evaluation Program for the improved ability to manage pastures and control foaling difficulties due to tall fescue.

Making a Difference for Horse Farms in KY

by <u>Ray Smith</u> Planning Unit: Plant and Soil Sciences

#### Major Program: Forages

In 2016, Paul and Melita Knapper were the first farm to be enrolled in the RCPP Overgrazing and Soil Degradation on KY Horse Farms. This program brings EQIP funds to horse farm to implement resource conservation practices and to improve the profitability and sustainability of small horse farms. The Knappers received more than \$30,000 to convert 30 acres from row crops to perennial pasture, therefore increases the amount of pasture they have and their ability to rotate horses.

When visited in July of 2020, the Knappers believed they had a 40% increase in the gross income of the farm because of these additional pastures allowed them to take on more horse for clients. One 5 acre paddock alone housed 3 yearlings, bringing in \$28 per day for each horse. An additional 5 acres not included in the RCPP program are now being converted as well, because "we've learned how to overseed pastures, we know how to do it now." Additionally, the Knappers have been using perennial ryegrass to maintain cover on small paddocks that are under constant pressure and are unable to sustain perennial cover.

Successful Equine Farm and Facilities Expo

by <u>Samuel Smith</u> Planning Unit: Plant and Soil Sciences

Major Program: Forages

The UK Horse Pasture Evaluation team and the University of Kentucky Ag Equine Programs host the annual Farm and Facilities Expo on May 30th, at Olive Hill Sporthorses, in Fayette county. Over 220 people attended the events including horse farm managers, horse farm owners, county extension agents, industry representatives and students. There were 15 industry and education exhibits and rotating workshops included: 1) harnessing on-farm solar potential, 2) overseeding damaged pastures, 3) weed control on horse farms, and 4) utilizing hay feeders to reduce waste. The timing of the expo was especially appropriate with all of the rain in 2018 and the resulting damage to pastures. Many participants planned to go back to their farms and implement the pasture establishment and weed control practices demonstrated.

Transforming Horse Farms in KY

by Samuel Smith

Planning Unit: Plant and Soil Sciences

Major Program: Equine

The UK Pasture Evaluation has been working with NRCS to bring cost share practices to horse farms in KY. Until 2 years ago, horse farms in KY did not qualify for NRCS cost share because horses were not considered commercial livestock. With recent changes with NRCS rules, horse farms now quality for cost share. We are working with a select group of farms to implement management practices that will improve their forage production, reduce soil erosion, and improve their economic viability. Three of these farms are "demo farms" where we are showing the improved practices that are possible. In addition to the demo farms, we are working with another 17 horse farms over the next 2 years. The farms we have worked with so far have shown dramatic transformations in their pasture management and overall farm management. Through this program, we look forward to promoting NRCS cost share programs to hundreds of horse farms in KY.

Equine Arena Footing Publication Series Launched

Author: Morgan Hayes

Planning Unit: Biosystems & Agr Engineering

#### Major Program: Equine

#### Outcome: Initial Outcome

In collaboration with Dr. Coleman of Animal Science, a series of three equine arena footing publications were launched. The publications cover footing materials and their characteristics, a guide for the equipment used to manage the footing, and descriptions of the watering and dragging used to maintain the footing. For many horse owners and facility managers footing represents a significant challenge and these publications provide a framework for better management and decision making..

Racecourse Manager Certification Program: Turfgrass as an Equine Sports Surface

#### Author: Karin Pekarchik

#### Planning Unit: Biosystems & Agr Engineering

#### Major Program: Equine

#### Outcome: Initial Outcome

With turf racing events steadily gaining in popularity on the racing calendar in the United States, the newly launched Racecourse Manager Certification Program: Turfgrass as an Equine Sports Surface focused on turf cultivation, conditions, and impacts. The continuing education program stems from the combined efforts of the NTRA Safety and Integrity Alliance, the University of Kentucky College of Agriculture, Food and Environment and the Racing Surfaces Testing Laboratory. Launched in June with three live-streamed webinars, the program provides intensive research-based education for horse industry professionals so they more fully understand recent trends and research on equine surfaces and the broad impacts of surface on equine performance.

With turf events steadily gaining in popularity on the racing calendar in the United States, turf cultivation, conditions, and impacts were a main focus. The three live-streamed sessions included "Selection of Turf for Climate Zones," (Mike Goatley, Gregg Munshaw, Elizabeth Guertal, Logan Freeman, Michael D. Boekholder and Geoffrey Rinehart); "Cultivation of Turf Compaction and Wear," (Jim Pendergest, Michael D. Boekholder, Leif Dickenson, Sean Gault, Geoffrey Rinehart, Logan Freeman, Trey Rogers and Elizabeth Guertal); and "Measurement of Turf Condition," (Sarah Jane Hobbs, Alison Northrop, Lars Roepstorff, Elizabeth Guertal and Mick Peterson).

"With over 20 presentations from 13 different speakers across multiple universities and organizations, not to mention time zones, this was a big undertaking. We were really pleased with the interest from the horse industry at large, though this was originally conceived for racetrack superintendents and such. I'm pleased to see participation across the spectrum of horse activities," said Michael "Mick" Peterson. "The certification program is an excellent example of the land-grant university mission—to take research-based, practical information to the public so they can put it into practice. I'm pleased that our audience, which grew each session and peaked at 32, will have this material to help them understand and make sound decisions about their equine surfaces, whether it's a turf race or training course, a polo field, or an eventing course."

Information about the program is available at <u>https://www.uky.edu/bae/racecourse-manager-</u> <u>certification-program</u>. The recorded courses can be watched for free on the <u>UK Ag Equine Programs</u> <u>YouTube channel</u>. The University of Kentucky will be administering the certification program. The fee for the certificate is \$50, and email notification will be sent when the testing portion for the certificate launches in July. Racecourse Manager Certification Program: Turfgrass as an Equine Sports Surface was sponsored by John Deere. Other sponsors include Duralock, Horsemen's Track and Equipment, Inc., and Equinox Racing.

#### Appendix Core Area 6 Supporting Documentation

#### Communications resources, online links

Website: <u>https://equine.ca.uky.edu/</u>

Social media:

Facebook:

UK Ag Equine Programs: <a href="https://www.facebook.com/UKAgEquine/">https://www.facebook.com/UKAgEquine/</a>

Gluck Center: https://www.facebook.com/GluckEquineResearchCenter

EQAAN: https://www.facebook.com/UKequinealumni

Twitter:

@UKAgEquine

@UKGluckCenter

Instagram: @ukequineprograms

YouTube: https://www.youtube.com/channel/UC8akLn5KK30Rtl60AJPFMYA

#### Newsletters:

Wildcat Canter, current and past issues: <u>https://equine.ca.uky.edu/wildcat-canter</u>

Equine Science Review, current and past issues: <u>https://equine.ca.uky.edu/equinesciencereview</u>

Graduate Gallop, current issue: <u>https://equine.ca.uky.edu/news-pubs-resources/graduate-gallop</u>

Equine Disease Quarterly, current and archived versions online: <u>https://gluck.ca.uky.edu/equine-disease-quarterly</u>

News releases:

Recent news releases: <u>https://equine.ca.uky.edu/agnews-equine</u>

Archived news releases: <u>http://news.ca.uky.edu/equine</u>

Other marketing and news:

Current banners for booth: <u>https://equine.ca.uky.edu/marketing-resources</u>

Saddle up Safely resource page: <u>https://equine.ca.uky.edu/saddleupsafely</u>

Podcast partnership with the The Horse: <u>https://thehorse.com/topics/media/podcasts/equine-innovators/</u>

Averly Jane coverage: <u>http://news.ca.uky.edu/article/big-blue-nation-rooting-uk-bred-averly-jane-breeders%E2%80%99-cup</u>

# AG EQUINE PROGRAMS

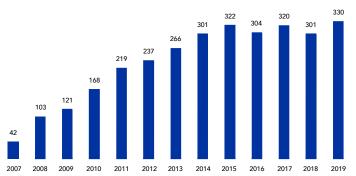


Food and Environment

### Equipping tomorrow's workforce

Top-notch, interdisciplinary undergraduate and graduate education, world-class equine research and unmatched service to the equine industry - all in one place.

#### UNDERGRADUATE ENROLLMENT

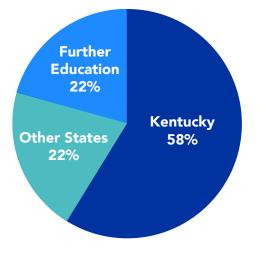


- 21% first generation, 2019

- Multiple university and industry partnerships
- 418 total graduates as of April 2019
- Tip of the iceberg for industry needs

Students from Kentucky and across the country enroll at UK to become part of Kentucky's equine industry. Our program is the reverse of a brain drain. Not only are we keeping our 'best and brightest' young citizens within the state, but we are drawing the 'best and brightest' from around the country to Kentucky, and they stay here. There are 418 current alums.

#### **GRADUATE DESTINATIONS**









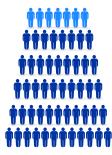
In October 2019, UK Ag Equine Programs hosted a career fair for 45 employers and hundreds of students from 10 different universities and five high schools.

#### **OUR ALUMNI BECOME:**

- Educators
- Entrepreneurs
- Sales Managers
- Veterinarians
- Marketing Professionals - Farm Owners

- Farm Managers

- Tourism Managers





of UK Equine students complete their required internship with a Kentucky employer

An average of 50 students complete their required internship each year (most do more than one). 88% of these internships are within Kentucky, 11% are out-of-state and less than 1% are international. Primary internship employment areas include riding/training/showing, farm management, equine medical and non-profit associations. 56% of students were employed at equine related jobs while enrolled and worked average of 15 hours per week.

equine.ca.uky.edu

# ANSWERING IMPORTANT QUESTIONS

The University of Kentucky has a long history of exceptional equine service and outreach, elements fundamental to the well-being of Kentucky's signature industry. The importance of research can't be overstated. Research leads to new knowledge. New knowledge helps answer critical questions and advance the discussion. UK has a culture of known **research excellence** with an established track record of innovation and service. Industry-inspired science is its trademark as a land-grant university. The work being done impacts all breeds and disciplines, provides answers for operations big and small and is known world-wide.

UK is a **horse and rider safety knowledge center**, a pillar of excellence established in the last decade. The research being done impacts the safety and well-being of both the equine and human athlete and includes the surfaces they compete on, knowledge about the musculoskeletal science of the horse, equine pharmacology, rider safety and more.

Many issues are being addressed by multidisciplinary teams that include **nutritionists**, **animal and plant scientists**, **engineers**, **microbiologists and veterinarians**. Interdisciplinary teams are studying aspects of equine health, including **infectious diseases**, **immunology**, **genomics**, **reproduction**, **pharmacology and parasitology**. They are working to understand the role of nutrition and feeding management on the health, growth and longevity of horses and developing nutrition and pasture management practices that improve knowledge of optimal feeding programs and optimal production schemes. Environmental stewardship and optimizing facilities are also an area of interest.

#### EQUINE'S ECONOMIC IMPACT\*

Kentucky's equine industry had a total economic impact of almost **\$3 billion** in 2012, generating 40,665 jobs. Tax contribution of the equine industry to Kentucky was approximately \$134 million. The state is home to 242,400 horses and the total value of Kentucky's equine and equine-related assets is estimated at **\$23.4 billion**. The survey identified **35,000 equine operations** and **1.1 million acres** devoted to equine use.





Photos from UK Veterinary Diagnostic Laboratory

#### UK RESEARCH IMPACTS KENTUCKY

UK's Veterinary Diagnostic Laboratory is one of the busiest state diagnostic laboratories in North America with more than *50,000 case submissions* each year. The laboratory also partners with Breathit Laboratory and Kentucky's State Veterinarian.

Kentucky 4-H Horse Program is **one of the largest 4-H horse programs** in the nation with more than 4,500 youth.

Several programs are in place to conduct adult education in all counties, teaching producers and horse owners. Some of the results include helping farms make improvements through **federal cost share programs**. Case in point: faculty and staff within UK's Horse Pasture Evaluation Program are helping state equine producers connect with National Resource Conservation Service through the Regional Conservation Partnership Program.

UK operates statewide veterinary outreach efforts through **extension programs and free clinics** in underserved counties.

#### EQUINE ACREAGE ACROSS KENTUCKY\*



Rounding out the top ten are: Oldham (21,000), Grayson (18,900), Warren (18,700), Boone (16,500) and Carter (16,400)



### **Equine Science and Management**

The horse industry is a dynamic industry that encompasses not only the breeding, raising and training of horses but also the development of activities for the use of the horse in sports and recreation. The industry has a significant economic impact across the U.S. and world-wide.

Equine science and management involves the study and application of science and business concepts to the horse industry. Additional course work supports learning in areas that aid in breeding and raising horses and marketing the industry. Students come from varied equine backgrounds but have a common interest in the horse. Regardless of which breed of horse or activity focus students have, equine science and management majors will have the opportunity to combine their interest in the horse with a desire to become active participants in the horse industry.

Students in equine science and management considering a career in veterinary medicine or graduate research can meet those goals in the degree program as well. Interested students need to consult with an advisor to ensure all specific academic requirements are met.

#### **Career Opportunities**

The horse industry is continually changing. Equine science and management graduates are needed in all aspects of the industry including production, business management and other related support industries.

#### **Graduation Requirements**

To earn the Bachelor of Science in Equine Science and Management, the student must have a minimum of 120 credit hours with at least a 2.0 grade-point average. A minimum of 45 credit hours must be from upper division courses (300 level and above). Remedial courses may **not** be counted toward the total hours required for the degree.

Students must complete the following:

#### **UK Core Requirements**

See the *UK Core* section of the 2021-2022 Undergraduate Bulletin for the complete UK Core requirements. The courses listed below are (a) recommended by the college, or (b) required courses that also fulfill UK Core areas. Students should work closely with their advisor to complete the UK Core requirements.

I. Intellectual Inquiry in Arts and Creativity Choose one course from approved list
II. Intellectual Inquiry in the Humanities           Choose one course from approved list
III. Intellectual Inquiry in the Social Sciences           Choose one course from approved list
IV. Intellectual Inquiry in the Natural, Physical, and Mathematical Sciences Choose course(s) from approved list
V. Composition and Communication I CIS/WRD 110 Composition and Communication I
VI. Composition and Communication II CIS/WRD 111 Composition and Communication II

#### **College of Agriculture, Food and Environment**

VII. Quantitative Foundations MA 109 College Algebra or
MA 123 Elementary Calculus and Its Applications or
MA 113 Calculus I
VIII. Statistical Inferential Reasoning STA 210 Making Sense of Uncertainty: An Introduction to Statistical Reasoning or STA 296 Statistical Methods and Motivations
IX. Community, Culture and Citizenship in the USA GEN 100 Issues in Agriculture, Food and Environment
X. Global Dynamics Choose one course from approved list
UK Core hours
Graduation Composition and Communication Requirement (GCCR) EQM 305 Equine Industry Issues
Premajor Requirements BIO 148 Introductory Biology I
CHE 105 General College Chemistry I CHE 107 General College Chemistry II CHE 111 General Chemistry I Laboratory CHE 113 General Chemistry II Laboratory
CHE 104 Introductory General Chemistry CHE 108 Introduction to Inorganic, Organic and Biochemistry without Laboratory
CHE 105 General College Chemistry I CHE 108 Introduction to Inorganic, Organic and Biochemistry without Laboratory7
ECO 201 Principles of Economics I
MA 109 College Algebra or
MA 123 Elementary Calculus and Its Applications or
MA 113 Calculus I
Subtotal: Premaior hours 18-23

#### - CONTINUED -

University of Kentucky is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award associate, baccalaureate, masters, and doctorate degrees. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097, call 404-679-4500, or online at *www.sacscoc.org* for questions about the accreditation of University of Kentucky.

### **Equine Science and Management • 2**

#### Major Requirements

ASC 101 Domestic Animal Biology	3
EQM 101 Introduction to the Horse and the Horse Industry	3
EQM 105 Equine Behavior and Handling	2
EQM 106 Introduction to Careers in the Equine Industry	1
ASC 310 Equine Anatomy	3
ASC 320 Equine Management	3
EQM 305 Equine Industry Issues	3
EQM 351 Equine Health and Diseases	3
EQM 399 Equine Science and Management Internship	
or	
EQM 396 Equine Study Abroad (Subtitle required)	3
EQM 490 Capstone in Equine Science and Management	3
AEC 302 Agricultural Management Principles	
Subtotal: Major hours	

#### **Emphasis Areas**

Students must have one emphasis area. In order to have an emphasis area, students must take 12 credits in one area. Students will then select 9 additional credits from any emphasis area. 21 credit hours in emphasis area courses must be completed.

#### **Equine Science**

This area will provide the students with a strong background in basic sciences which will prepare them for graduate school or careers such as laboratory research assistants, breeding technicians, pharmaceutical sales representatives, and technical representatives for the feed industry.

ASC 220 Applied Animal Behavior and Welfare	
ASC 311 Advanced Equine Evaluation1	
ASC 325 Animal Physiology	
ASC 364 Reproductive Physiology of Farm Animals4	
ASC 378 Animal Nutrition and Feeding	
ASC 380 Applied Animal Nutrition	
ASC 389 Advanced Equine Nutrition and Feeding2	
ASC 410G Equine Science	
EQM 300 Topics in Equine Science and Management1-6	
PLS 366 Fundamentals of Soil Science	
PLS 510 Forage Management and Utilization	
VS 307 Genetics of Horses	
VS 500 Advanced Equine Reproduction	
VS 507 Advanced Horse Genetics	
Subtotal: Emphasis hours	

#### **Equine Management and Industry**

Students will learn skills related to marketing, operations, and management of equine businesses. This will prepare students for careers as farm managers as well as business managers for equine enterprises, breed associations, and sales associates. This area also introduces them to the diversity of the equine industry through courses in equine law, sales, careers, event planning, marketing, and human resources.

AEC 305 Food and Agricultural Marketing Principles
AEC 320 Agricultural Product Marketing and Sales or
MKT 300 Marketing Management
AEC 324 Agricultural Law
AEC 325 Equine Law
AEC 340 Human Resource Management in Agriculture
EQM 210 Tools and Tack in the Equine Industry
EQM 300 Topics in Equine Science and Management1-6
EQM 301 Thoroughbred Sales
EQM 340 Equine Facility Design and Management
Subtotal: Emphasis hours

#### **Communications and Leadership**

Students who are interested in leadership roles in business, breed associations or nonprofit equine organizations and cooperative extension should consider this area. They will enhance their communication skills and be required to take courses in community dynamics, leadership development, and agriculture communication.

CLD 102 The Dynamics of Rural Social Life
CLD 230 Intrapersonal Leadership
CLD 260 Community Portraits
CLD 320 Community and Communication: Exploring Their Intersections
CLD 400 Agricultural Communications Campaigns
CLD 401 Principles of Cooperative Extension
CLD 402 Principles of Leadership
CLD 403 Leadership and Communication
CLD 404 Contemporary Leadership Applications
CLD 430 Leading in Communities: Vision, Action, and Change
CLD 495 Topical Seminar in Community and
Leadership Development (Subtitle required)1-3
CLD 530 Fundamentals of Organizational Leadership
EQM 300 Topics in Equine Science and Management1-6
EQM 302 Equine Event Planning1
Subtotal: Emphasis hours

#### **Specialty Support Requirement**

The student will choose, in consultation with an advisor, at least 18 hours of courses at the 200 level or above that will strengthen the program in an area of importance to the student. To aid in developing this area of study, a list of suggested courses is available from your advisor. The list includes courses in agricultural economics, animal sciences, community and leadership development, marketing, management, finance, plant and soil sciences plus other areas of study at UK.

#### 

#### Electives

Electives should be selected by the student to lead to the minimum total of 120 hours required for graduation

Subtotal: Electives	minimum of 3
Total Minimum Hours for Program	

UK Equine Science and Management Undergraduate Program

# THE PATH TO PROFESSIONALISM

Blazing your personal trail into the equine industry.

### YEAR 1

Introduction to the equine industry Career exploration Personal exploration Job shadowing Goal-setting

### **ESSENTIAL COMPONENTS**

EQUINE COURSE WORK, ADVISORS, EXTRA & INTRA-CURRICULAR ACTIVITIES & RESOURCES

TIDBITS NEWSLETTER & EQUINE STUDENT HUB WEBSITE



### YEAR 3

Course specialization based on career aspirations Experiential learning opportunities Professional growth planning Adaptability among varied experiences Networking and relationship building



### YEAR 2

Development of communication skills Analysis of equine industry issues Utilizing critical thinking and problem solving to make informed decisions Research analysis Professionalism skills

-resumes, cover letters, interviews

### **EMPHASIS AREAS**

EQUINE SCIENCE EQUINE INDUSTRY & MANAGEMENT COMMUNICATIONS & LEADERSHIP



### EXPERIENTIAL LEARNING

INTERNSHIPS, EDUCATION ABROAD & RESEARCH





Engaged and employed within equine industry Equine alumni affiliate network Participation in equine related professional growth and development

### YEAR 4

Critical thinking and analysis of advanced level industry issues

Team work skills

Exploration of principles and ethics Fostering life-long learning



### CAREER & OPPORTUNITY HIGHLIGHTS

PROFESSIONAL DEVELOPMENT SERIES INTERNSHIP ENCOUNTER CAREER FAIR INDUSTRY NETWORKING INTERNSHIP SHOWCASE



Ag Equine Programs College of Agriculture, Food and Environment

# When it comes to career readiness... *OUV EQUINE STUDENTS* are at the front of the herd.

Employability skills are essential to being prepared for both initial and long-term professional success. Built on a strong foundation of knowledge in equine science and core subjects, our curriculum actively develops the following essential employability skills that enable students to reach career goals and achieve their full potential.

### Communication

- Connect with industry leaders through mock interviews in courses
- Development and creation of e-portfolio
- Variety of presentations (inside and outside the classroom)
- Article and blog post writing
- Equine education abroad experiences



Principled

- Evaluation of contentious topics within the equine industry
- Equine industry ethics analysis
- Workplace ethics case studies and explorations



### Inquiry

- Personality and strengths finding reflections in sequential courses
- Extensive undergraduate research opportunities within agricultural economics, veterinary sciences, animal sciences, behavior, biosystems and agricultural engineering and more

Problem Solving

- Hands-on equine labs and lab practical examinations
- Case study analysis in multiple content areas Scientific research report papers and analysis
- Issue analysis and project development for internship site

### Professionalism

- Equine industry exploration and job shadowing requirements
- Professional growth planning
- Resume and cover letter
- Linked-In and social media training
- Wildcat Wrangler student ambassador program

Learning

- Explore the local equine industry in and outside of classes
- Weekly email communications highlighting jobs, internships, volunteering and professional development opportunities
- Industry professionals and alumni guest speakers







Development of internship cohort Group and team projects integrated int coursework Peer mentor and teaching assistant opportunities Nine equine-related clubs and teams



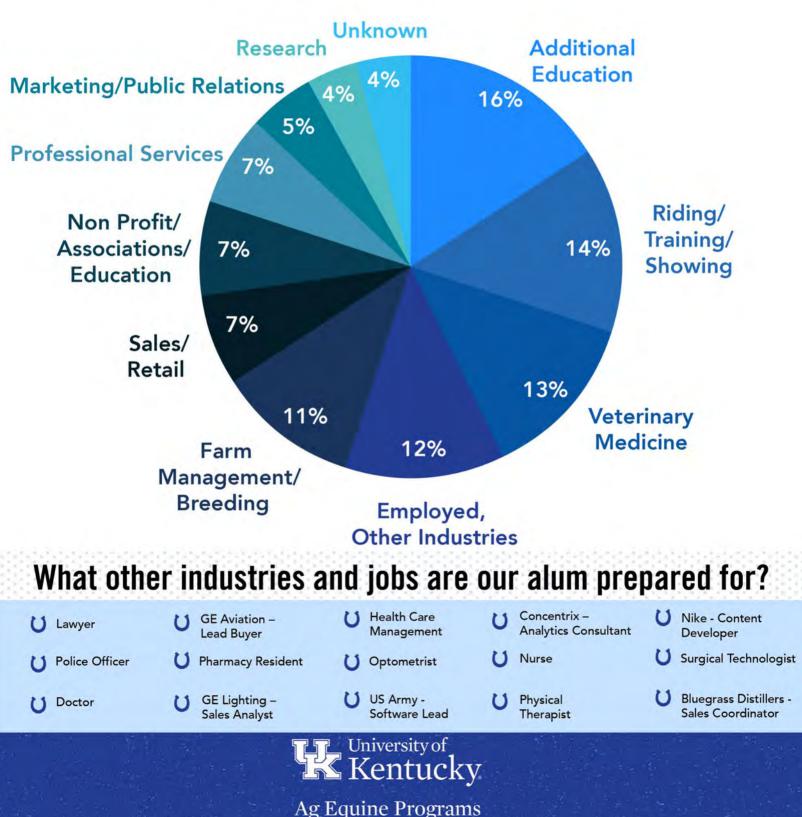
- On farm and hands-on equine lab experiences with our herd of 150+ horses
- Diverse study abroad experiences
- Internship supervisor assessment of adaptability across working conditions





Ag Equine Programs College of Agriculture, Food and Environment EQUINE SCIENCE AND MANAGEMENT ALUMNI STATISTICS

88% of equine alumni are currently pursuing careers in the equine and related animal industries.



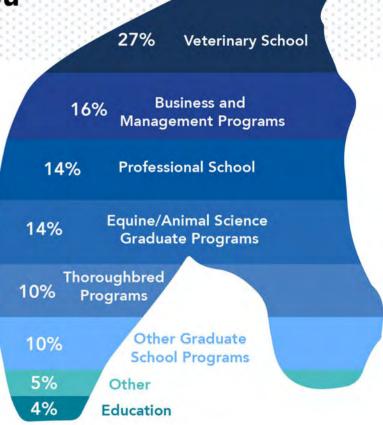
College of Agriculture. Food and Environment

### EQUINE SCIENCE AND MANAGEMENT ALUMNI STATISTICS

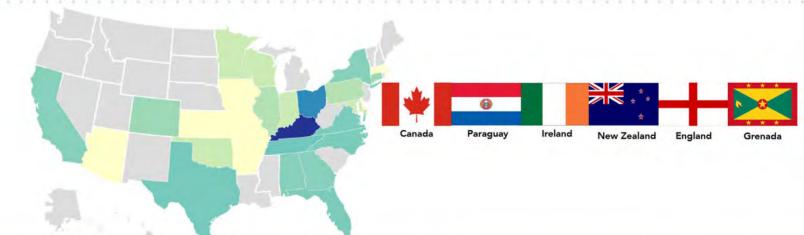
# 27% of Alumni have pursued further education.

10

164



## Where in the world have our alumni gone?





equine.ca.uky.edu

# UNIVERSITY OF KENTUCKY AG EQUINE PROGRAMS

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AND

UK's College of Agriculture, Food and Environment is home to nine active equine student organizations. Whatever your horse interest, there's most likely a club or team whose members share your passions.

#### COLLEGIATE PROFESSIONAL Horseman's Association (CPHA)

Provides professsional, industry-oriented experiences and opportunities for its members. Through a combination of guest speakers, tours, and service requirements, CPHA will provide education and networking with some of the industry's elite. Open to all majors, this club is a chance for equine enthusiasts of all backgrounds, levels and disciplines to create a diverse and unified community.

Advisor: Dr. Bob Coleman, rcoleman@uky.edu and Savannah Robin, savannah.robin@uky.edu

#### **UK DRESSAGE TEAM**

The UK Dressage Team competes with other colleges in the region. Team members will either ride a dressage test in front of a judge or will ride in dressage seat equitation. Dressage seat equitation is a flat class with other riders in that level; riders are judged solely on equitation and not the patterns of a test. The team does require tryouts to determine which level participants compete in. Those who try out will hear back with the results within a week of the final tryout. Advisor: Dr. Jill Stowe, jill.stowe@uky.edu

#### **UK EQUESTRIAN TEAM (IHSA HUNT SEAT)**

The University of Kentucky offers an Intercollegiate Horse Show Association hunt seat team. The team travels to shows in the region competing against other universities on horses drawn at random. The goal is to level the playing field and bring fair competition to all students. Members do not need a horse to join!

Advisor: Dr. Bob Coleman, rcoleman@uky.edu

#### **UK WESTERN EQUESTRIAN TEAM (IHSA)**

The University of Kentucky also offers an Intercollegiate Horse Show Association western team. The team travels to shows in the region competing against other universities on horses drawn at random. The goal is to level the playing field and bring fair competition to all students. Members do not need a horse to join!

Advisor: Dr. Bob Coleman, rcoleman@uky.edu

#### **UK EVENTING TEAM**

The University of Kentucky Eventing team was designed to allow students to compete and support each other at local shows and events. Members compete at IEL, Intercollegiate Eventing Leauge, events. Mixed teams compete against each other in a team challenge setting. When not competing at an EIL event members try to attend events and stable together at USEA area VIII shows and combined tests. Advisor: Dr. Jill Stowe, jill.stowe@uky.edu

#### **UK POLO TEAM**

UK polo has a string of 14 top-of-the-line polo ponies, which are used for games, practices and lessons. The program has members of all levels and backgrounds. The team conducts polo clinics, one to one polo and riding lessons and teaches important horsemanship skills. Members greatly enjoy sharing their passion for horses and polo with anyone that is interested to try something new and different.

Advisor: Dr. Roger Brown, rogerbrown@uky. edu

#### HORSE RACING CLUB

From farm tours to track trips, this club knows its way around the Horse Capital of the World. The Horse Racing Club's mission is to educate students about horse racing, and provide the opportunity to experience the many aspects of the horse racing industry.

Advisor: Dr. Laurie Lawrence, llawrenc@uky.edu

#### **UK RODEO TEAM**

The University of Kentucky Rodeo Team competes in the Ozark region of the National Intercollegiate Rodeo Association, NIRA. Through NIRA, the team's students can compete in events such as saddle bronc, bareback, bull riding, barrel racing, goat tying, steer wrestling, tie-down roping and team roping. The team has students from all corners of the United States with different backgrounds and disciplines. Advisor: Monty Ott, monty.ott@uky.edu

#### **UK SADDLE SEAT TEAM**

The team takes a lot of pride in being very inclusive and encourages everyone interested to take a lesson and try it out. The team has a range of members, from those who have never ridden before to those who have won world championship titles. Typically, the team practices once per week and competes five times throughout the school year.

Advisor: Dr. Mary Rossano, mary.rossano@ uky.edu

The College of Agriculture, Food and Environment is an Equal Opportunity Organization.

FIND OUT WHAT'S

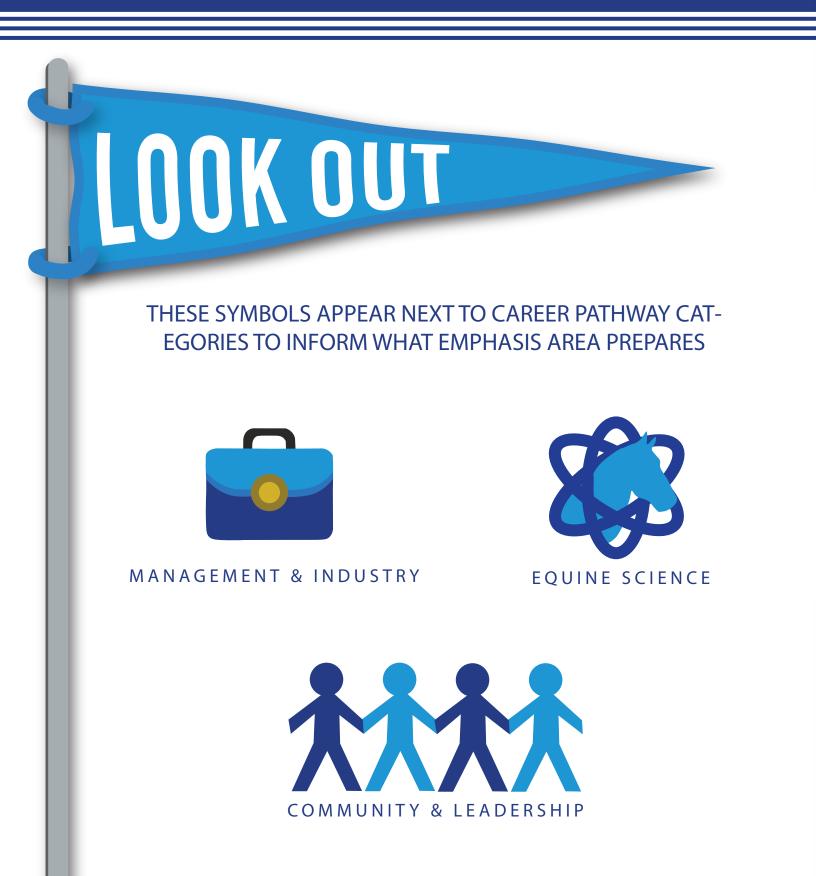
Wildly Possible

# EOUNE CAREER PATHWAYS



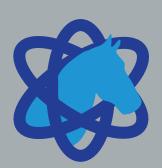
Ag Equine Programs College of Agriculture, Food and Environment

# EMPHASIS AREAS









AGRICULTURE TEACHER EXTENSION AGENT/SPECIALIST EQUINE PROFESSOR NONPROFIT EDUCATION AND OUTREACH RIDING INSTRUCTOR YOUTH ORGANIZATIONS CURRICULUM DEVELOPMENT TEAM COACH



### ORGANIZATIONAL MANAGEMENT & EVENT PLANNING

ENDORSE COORDINATOR FREELANCE DESIGNER SOCIAL MEDIA INFLUENCER NONPROFIT EXECUTIVE DIRECTOR HUMANITARIAN ASSISTANCE PROGRAM MANAGER EQUINE THERAPIST EQUINE RESCUE ORGANIZER SPECIAL PROGRAMS MANAGEMENT COORDINATOR



LAW SCHOOL & GOVERNMENT





EQUINE LAWYER AGRICULTURAL LAWYER LOBBYIST WILD HORSE AND BURRO SPECIALIST ATTORNEY EQUINE ADVOCATE PUBLIC HEALTH PUBLIC POLICY







ADMINISTRATOR OPERATIONS COORDINATOR SPONSORSHIP COORDINATOR ACCOUNTING SUPPORT REPRESENTATIVE ACCOUNTING MANAGER NATIONAL DIRECTOR/EMPLOYEE BLOODSTOCK AGENT



### PHARMACEUTICAL, DENTAL & MEDICAL



DOCTOR OF PHARMACY DOCTOR OF MEDICINE DOCTOR OF DENTISTRY CERTIFIED PHARMACY TECHNICIAN PHARMACEUTICAL REPRESENTATIVE VETERINARY PHARMACIST



# **PRE-VET & VETERINARIAN**





VET TECHNICIAN VET ASSISTANT AMBULATORY VET TECH NURSING ASSISTANT RADIOLOGY TECHNICIAN ICU NURSE RADIOLOGIST X-RAY TECHNICIAN





# RESEARCH





RESEARCH ANALYST LAB TECHNICIAN VETERINARY SCIENCE RESEARCH GENETICIST BACTERIOLOGIST ECONOMIST BIO-SYSTEMS AND AG ENGINEERING



# FARM & BARN MANAGEMENT





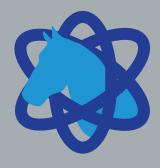
BLOODSTOCK MANAGER OFFICE MANAGER BUSINESS MANAGER OR ASSISTANT TO FARM/FACILITY/BARN MANAGER ACCOUNT MANAGER EQUINE EDUCATION MANAGER TERRITORY MANAGER SPONSORED RIDER MANAGER TRACK MANAGER



# **ALTERNATIVE MEDICAL**



EQUINE MASSAGE THERAPY ANIMAL CARE SPECIALIST OR ASSISTANT TO HYPERBARIC TECHNICIAN EQUINE DENTIST ALTERNATIVE HEALTH PRACTITIONER REHABILITATION THERAPIST EQUINE VETERINARY ACUPUNCTURIST EQUINE CHIROPRACTOR





# **ANALYTICS & DATA**





EQUINE UNDERWRITER INSURANCE ADJUSTER EQUINE AGRONOMIST ENVIRONMENTAL CONSULTANT EQUINE ANALYST STATISTICIAN OR ASSISTANT TO PEDIGREE ANALYST



# **BREEDING & REPRODUCTION**



REPRODUCTION CENTER MANAGER ARTIFICIAL INSEMINATOR BROODMARE MANAGER FOALING ATTENDANT STALLION MEMBER BREEDER



# EQUINE INDUSTRY SALES





ASSISTANT RETAIL/SALES MANAGER INSIDE SALES ASSOCIATE REALTOR FOOTWEAR TERRITORY MANAGER SADDLE REPRESENTATIVE





# **ESSENTIAL SERVICES**





SADDLE MAKER/FITTER EQUINE TRANSPORT PROVIDER MOUNTED POLICEMAN ANIMAL ABUSE INVESTIGATOR STUNT RIDER ENGINEER FACILITIES DESIGNER/ARCHITECT LANDSCAPE ARCHITECTURE TURF MANAGEMENT/DESIGN



# HORSE RECREATION



TRAIL GUIDE TRAIL ENGINEER PARKS AND RECREATION ADMINISTRATOR RECREATION PLANNER GUEST RANCH HOST/HOSTESS PARADE ORGANIZER PROFESSIONAL HUNTSMAN NATIONAL PARK RANGER



### HORSE SALES



STALLION AND SALES ENTRIES SALES REPRESENTATIVE BUYER'S AGENT SALES ASSISTANT CATALOGUE WRITER CLOSING SPECIALIST FIELD SALES TRAINEE SALES BROKER HORSE AUCTIONEER









EQUINE ASSISTED SERVICES THERAPIST HIPPO-THERAPY EGALLA PATH LEADERSHIP DEVELOPMENT SERVICES



# PODIATRY

FABRICATION SPECIALIST OR ASSISTANT TO FARRIER





# MARKETING & PUBLIC RELATIONS





EQUINE JOURNALIST EQUINE PHOTOGRAPHER TRACK PHOTOGRAPHER EQUINE BOOK WRITER/PUBLISHER COMMUNICATIONS DIRECTOR SOCIAL MEDIA COORDINATOR OR INFLUENCER JOURNALISM MARKETING DIRECTOR





# RIDING





DIRECTOR OF RIDING OR ASSISTANT TO TRAINING RIDER HOT RIDER WRANGLER (RANCH-WORK) PROFESSIONAL (ANY DISCIPLINE) JOCKEY EXERCISE RIDER



# SHOW SUPPORT

GROOM (FEI, AGE OR BREED SPECIFIC) YEARLING PREP SHOW MANAGEMENT BRAIDER COURSE DESIGNER JUMP DESIGNER HORSE SHOW ANNOUNCER JUDGE/RING STEWARD



# TRAINING



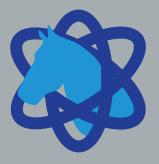
ASSISTANT TRAINER HEAD TRAINER BOARDING TEAM MEMBER COACH INSTRUCTOR SPORTS PROGRAM ASSISTANT HEAD WRANGLER



# **RACING PATHWAYS**

**STEWARD** HORSE RECORDING COORDINATOR **RACING ASSISTANT TRACK SUPERVISOR EXERCISE RIDER** 2-YEAR-OLD SCOUT **BLOODSTOCK AGENT RACING CHEMIST RACING SECRETARY RACING SECURITY** EOUINE TATTOO INSPECTOR BOOKKEEPER JOCKEY COMPTROLLER **JOCKEY'S AGENT OUTRIDER TRACK STARTER** TRACK BLACKSMITH





DISCOVER THE

Endless Opportunities

WITHIN UK'S EQUINE SCIENCE AND MANAGEMENT PROGRAM



Ag Equine Programs College of Agriculture, Food and Environment

TO LEARN MORE VISIT WWW.EQUINE.CA.UKY.EDU OR CONTACT EQUINE@UKY.EDU Take a tour of our

Publication Stable



Each month UK Ag Equine Programs distributes a student newsletter called the Wildcat Canter. The Wildcat Canter features equine club and organization news and updates, UK Ag Equine Programs news and features and a wide range of spotlights, from students to classes, advisors, scholarships and job and internship opportunities. Its purpose is to keep students, alums and those interested in UK's equine programs updated.



Welcome to the Equine Science Review: highlighting research and outreach efforts at the University of Kentucky! The Review is a monthly newsletter from the University of Kentucky College of Agriculture, Food and Environment that highlights the important equine work happening at the university. UK is home to world-class research and service excellence in equine health, safety, nutrition, pasture and forages, economics, engineering, environmental compliance and many others. Programs at UK offer the depth and breadth of scope fitting its location in the heart of horse country.



The Graduate Gallop is curated for our equine alumni to stay connected and informed. This monthly e-newsletter includes event and program information, a career connections and job postings, networking and volunteer opportunities, a highlighted professional tips topic each month, dates and deadlines and alumni features. This publication also provides a communications platform for UK's Equine Alumni Affiliate Network (EQAAN) to keep in touch with alumni.

### Subscribe to these publications by scanning the QR code!



### JANUARY 2022 EDITION

### WILDCAT CANTER UNIVERSITY OF KENTUCKY AG EQUINE PROGRAMS NEWSLETTER

UK Ag Equine Programs held an open house for the 13 Equine Science and Management graduates Dec. 17 at the Pirri Teaching Pavilion on Maine Chance Equine Campus.

UK Ag Equine Programs wants to learn what influenced Equine Science and Management students to make their college decision. with a new survey.

University of Kentucky Ag Equine Programs announces its second equine-oriented digital photography contest. Submissions will be accepted through Feb. 28.

# HIGHLIGHTS



#### UK AG EQUINE PROGRAMS HOSTS SECOND ANNUAL PHOTOGRAPHY CONTEST

PAGE 12

University of Kentucky Ag Equine Programs announces its second equine-oriented digital photography contest. Submissions will be accepted through Feb. 28. All are encouraged to participate, from students to the general public. (*Photo credit, right, Audrey Cowen, one of the* 2021 contest winners.)

# Equine Science Students & Alumni

We want to learn about YOU



#### **CONGRATULATIONS GRADUATES!**

#### PAGE 7

UK Ag Equine Programs held an open house for the 13 Equine Science and Management graduates Dec. 17 at the Pirri Teaching Pavilion on Maine Chance Equine Campus. Graduates and their families had the opportunity to mingle with teaching faculty, advisors and staff of UK Ag Equine Programs while enjoying light refreshments.



#### "WHY DID YOU CHOOSE UK?" SURVEY ASKS

PAGE 12

UK Ag Equine Programs wants to learn what influenced Equine Science and Management students to make their college decision. We created this survey in hopes of learning about what parameters influence prospective equine students and played a part in helping you make final college decisions.

UPCOMING EVENTS AND IMPORTANT DEADLINES

- Jan. 31-Feb. 18, UK Research and Education Center Field Cleanup
- Feb. 1 and 2, UK VetCE: Topics in Reproduction
- Feb. 21, Pastures Please!!

WILDCAT CANTER JAN 2022 PAGE 2

### WELCOME

#### Horses are in the plus column

The horse world has become a source of optimism for me, at least that portion of the horse world that I see as director of UK Ag Equine Programs. There are clearly some major issues to be stressed about in our world today, but over this past year horses and equine science were just the opposite – things to be proud of and reasons for hope going forward. I will share three examples.

The COVID pandemic has made us all more familiar with the biology of infectious disease agents and biosecurity parameters – things related to transmissibility and susceptibility. The first time I experienced the emergence of a new infectious agent within a naïve population was canine parvovirus in the late 1970s and early 1980s. As a result of a couple of DNA nucleotide mutations, suddenly there was a new type of parvovirus that was very good at infecting canine cells. As a result, dogs across the globe were all suddenly susceptible to a serious new disease. Mortality approached 90% in puppies and 10% in adults. Incredible numbers of dogs died and it took years to isolate the new virus and figure things out. Of course, we are currently living through the incredible loss and pain of a global pandemic caused by a new human coronavirus, SARS-CoV-2.

Turning to horses, last spring a number of farms were challenged by a novel diarrheal disease impacting newborn foals. It turns out that the disease was caused by Rotavirus B, a strain that had never infected horses before. Yet, UK



scientists and colleagues identified the causative infectious agent and figured out some crucial issues in a matter of months – not years, literally in just a few months. So, within a single foaling season, they identified an important new equine virus and defined specific ways that breeding farms could minimize the disease's impact. I will not overview the science here, but new genomic technologies played a major role. Molecular and cellular advances are literally transforming medical sciences. We see this everywhere in human healthcare, and it is very exciting that horses are also well positioned to benefit in parallel from these exciting knowledge- and technology-driven advances.

My second 2021 reflection relates to equine athletes and sports medicine. Positive changes are happening on a number of fronts. Competition surfaces, drug pharmacology and detection, the standardization of regulatory issues, diagnostic imaging, safety equipment, public education and other health and safety variables are all advancing with positive effect. Last year, catastrophic injury rates in Thoroughbred racing were the lowest reported in the 12 years of data provided by The Jockey Club. The welfare and safety of both equine and human athletes have clearly and openly become a very high priority across horse disciplines and competition formats. Everyone can be excited about this.

My third reflection centers on the Maine Chance Farm team and the Thoroughbred foals they raise. What a great program on many levels – educational, student experiential opportunities, student jobs, synergy with research and extension programs, lasting memories and the fun of following the racing careers of these UK-bred horses. This past year was extra special because of Averly Jane, the filly that won her first four races impressively before a solid effort in a Breeders' Cup race. I enjoyed talking to the students who worked with the filly as a foal and yearling. I enjoyed watching her races. I enjoyed visiting Averly Jane at her training barn last fall. My congratulations to the students, staff, faculty and all of the horses in this program. Well done.

So yes, horses were definitely in the plus column for me in 2021. Looking forward, I think there is reason for optimism that 2022 will also be a good year for UK Ag Equine Programs. Let us hope so together.



JAMES MACLEOD, VMD, PHD UK AG EQUINE PROGRAMS DIRECTOR, JOHN AND ELIZABETH KNIGHT CHAIR, GLUCK EQUINE RESEARCH CENTER



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#### MASTHEAD

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### CONNECT WITH US ON SOCIAL MEDIA

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### **CONGRATULATIONS GRADUATES!**

UK Ag Equine Programs held an open house for the 13 Equine Science and Management graduates Dec. 17 at the Pirri Teaching Pavilion on Maine Chance Equine Campus. Graduates and their families had the opportunity to mingle with teaching faculty, advisors and staff of UK Ag Equine Programs while enjoying light refreshments. The graduates received a gift for their outstanding accomplishments during their undergraduate career. We salute the following grads!

# CONGRATULATIONS



Abigail Bowles

INTERNSHIP: Central Kentucky Riding for Hope, Barn Management Intern

What is your favorite memory from your undergraduate career? Getting to intern at an awesome organization that helps so many people.

What are your plans for after graduation? I have no definite plans other than finding a full-time job in the Louisville area. Most impactful faculty or staff member?

HOMETOWN: Louisville, KY

My advisor, Dr. Coleman, for offering advice on classes and helping me stay on track.

### Maya Caceres

INTERNSHIP: Pocket aces Racing LLC, Communications intern

### What is your favorite memory from your undergraduate career?

Working at Breeders' Cup World Championship and being able to help put on, work, attend the event at Keeneland in 2020.

### What are your plans for after graduation?

I plan on moving back home to Maryland where I will be trying to pursue a job within the business side of the Thoroughbred Industry.

### Most impactful faculty or staff member?

Dr. Carleigh Fedorka! She helped me apply what I learned in class at the farm.



HOMETOWN: Bethesda, MD



HOMETOWN: Louisville, KY

### **Daniel Deatrick**

### INTERNSHIP: Rigney Racing, Barn Assistant

What is your favorite memory from your undergraduate career? Watching Averly Jane, a filly I helped raise at Maine Chance and took through the sales ring at Fasig-Tipton, win a Breeders' Cup Win at Keeneland and run in the Breeders' Cup.

### What are your plans for after graduation?

I will be working for Godolphin at Gainsborough Farm. I also plan on going to graduate school to pursue an MBA.

### Most impactful faculty or staff member?

Kristen Wilson and Savannah Robin have both been so supportive of me and have pushed me to step out of my comfort zone through experiences like Wildcat Wranglers and being a TA for EQM 101. Dr. Lawrence, Tim Jedra and Matt Zehnder, the managers at Maine Chance, have also taught me so much in my time at the farm and helped me get my start in the Thoroughbred industry.

# CONGRATULATIONS



### Rebecca Geringer

INTERNSHIP: Blackrock Ranger Station, Livestock Assistant Manager

What is your favorite memory from your undergraduate career?

My first weekend at Keeneland getting to go to the races.

### What are your plans for after graduation?

HOMETOWN: Elburn, IL

I will be managing the young horse program for Aliboo Farm West in Glacier, Montana.

### Most impactful faculty or staff member?

Savannah Robin, she always cared about my success from the moment I decided to transfer to my last credit hour before graduation from this program.

### Kylie Harris

INTERNSHIP: Harrison Horse Training, Farm Management Intern

### **Campus Involvement:**

Team Roper with the UK Rodeo Team

### What are your plans for after graduation?

To continue working for Harrison Horse Training in a full-time position.



HOMETOWN: Madisonville, KY



HOMETOWN: Taylor Mill, KY

### Naomi Hurdle

INTERNSHIP: Breeders' Cup, Ticketing and Customer Service Intern

### What is your favorite memory from your undergraduate career?

Spending 2.5 weeks in Del Mar for Breeders' Cup and being an integral piece in hosting the event is pretty hard to beat!

### What are your plans for after graduation?

I plan to make a career in horse racing marketing and PR. I have a strong desire to write my own story within this, and to share others. Horse racing is a beautiful sport and a humble lifestyle. I want the public to know that.

### Most impactful faculty or staff member?

In regards to my career life, Mrs. Robin. When others said it couldn't be done, she never failed to re-light the fire in my belly and create a way for me to get out there and do it. In regards to my life as a horsewoman, Dr. Rossano. I saw the way she loved and treated horses and through the watch of a careful eye, began to develop my own demeanor around them as well.

# CONGRATULATIONS



HOMETOWN: Traverse City, MI

### Cecilia Kurkowski

INTERNSHIP: Ballyhigh Show Stables, Assistant Lesson Barn Manager

### What is your favorite memory from your undergraduate career?

The equine welcome back barbeque. As a transfer student, I hardly knew anyone and this was such a fun opportunity where I made new friends and we raced the bouncy horses.

### What are your plans for after graduation?

I don't have solid plans after graduation yet as I am still looking for a job, but I do plan to stay in Lexington for a while longer!

### Most impactful faculty or staff member?

It really is hard to just pick one as all the equine faculty was welcoming and supportive. But I would have to say Savannah Robin through my whole college career at UK. From the start of EQM 106 supporting me being so versatile between disciplines to now helping me find jobs, being confident in my decisions, and knowing my worth.

### Aracely Marin

INTERNSHIP: Kentucky Equine Adoption Center, Barn Management Intern

### What is your favorite memory from your undergraduate career?

I would say it was my time at my internship I had a great time getting to actually work with horses and getting to experience new things.

### What are your plans for after graduation?

After graduation, I will be applying for jobs to work a farm and I would like to do some volunteering in places that interest me.

### Most impactful faculty or staff member?

Camie Heleski, I thought that she was a great professor and advisor always helping me if I needed. I even wrote a paper on why she was a good example of a leader.

### ayna Pellett



HOMETOWN: Appleton, WI

### INTERNSHIP: Maker's Mark Secretariat Center, Equine Nonprofit Fundamentals Intern

### What is your favorite memory from your undergraduate career?

Meeting with Catherine Whitehouse, equine nutritionist at KER; Catherine helped solidify my aspirations to become an equine nutritionist.

HOMETOWN: Lexington, KY

### What are your plans for after graduation?

After graduation, I plan to acquire an equine industry career, precisely one involving nutrition, and then begin the application process for the Animal Science Master's Program at the University of Kentucky. With my Master's, I hope to establish myself as an equine nutritionist in Central Kentucky!

### Most impactful faculty or staff member?

The most impactful equine faculty member from my entire career was Savannah Robin. During her class, Savannah Robin encouraged me to step out of my comfort zone and develop my skills. Even after completing her course, she continued to help sculpt me into the professional I am today.

# CONGRATULATIONS



HOMETOWN: Lexington, KY

### Mackenzie Rockefeller

INTERNSHIP: Racing Surfaces Testing Laboratory, Research Intern

### What is your favorite memory from your undergraduate career?

Working with Dr. Peterson and others at the Racing Surfaces Testing Lab.

### What are your plans for after graduation?

I will become a full-time employee at the Racing Surfaces Testing Laboratory starting in January 2022, where I will be learning to manage the lab as well as focusing on the completion of the Maintenance Quality Database the lab is working on with The Jockey Club. I also plan to apply to the College of Public Health at the University of Kentucky by this upcoming February to hopefully begin a Master's Degree.

### Most impactful faculty or staff member?

Mrs. Savannah Robin was the most impactful faculty member in my college career because she was able to listen to my story and help guide me in the right direction. Coming into the equine program as a late-major transfer, I did not have as much time as others to find where I needed to be, but with only a few conversations I felt like I had been a part of the program since I was a Freshman

### **Allison Strecker**

INTERNSHIP: Great American insurance Group, Associate Underwriter in Equine Mortality

### What is your favorite memory from your undergraduate career?

Working on the UK Research Farm in the Vet Science Department. Nothing more exciting than learning to manage a whole operation with just a few set of hands.

### What are your plans for after graduation?

Continue with Great American and set sights on law school to pursue agriculture, environmental, or equine law. All three would be preferable!

### Most impactful faculty or staff member?

I cannot pick between everyone! For my personal journey, though, Dr. Coleman, Mrs. Wilson and Dr. Heleski have guided me through this turbulent experience and never gave up on me. It is the dedication they show to their students that helped me feel like I was able to succeed.



HOMETOWN: Louisville, KY



# Fall 2021 DEAN'S LIST

### EQUINE SCIENCE & MANAGEMENT

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### **"WHY DID YOU CHOOSE UK?" SURVEY ASKS UK EQUINE STUDENTS**



UK Ag Equine Programs wants to learn what influenced Equine Science and Management students to make their college decision. We created this survey in hopes of learning about what parameters influence prospective equine students and played a part in helping you make final college decisions. Please take a moment to complete the survey <u>here</u>. We are excited to learn more about how you chose this program.



### **UK AG EQUINE PROGRAMS HOSTS SECOND ANNUAL PHOTOGRAPHY CONTEST**

By Sydney Carter

University of Kentucky Ag Equine Programs announces its second equine-oriented digital photography contest. Submissions will be accepted through Feb. 28.

All are encouraged to participate, from students to the general public. There are three age divisions for submissions: UK students, youth (17 and under) and open (18 and over).

UK Ag Equine Programs is looking for original, high-quality photographs that exhibit any discipline or breed of horses, horses interacting with people and a more artistic category. Photographers can submit photos online via a Google form.

Entries will be judged by a committee of staff, students and trained photographers in early March.

Each division's winning image will be published on the UK Ag Equine Programs' Facebook page for a "People's Choice Award." Votes for the award will be determined by the number of likes that each image receives by 5 p.m. EST on Friday, March 11.

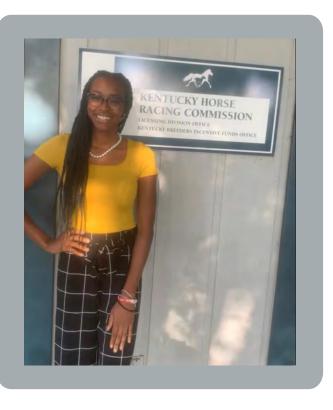
Prizes will be awarded to category winners of each age division as well as the opportunity to be featured in the program's monthly newsletter, The Wildcat Canter, and other UK publications.

Participants can get more information regarding the rules and how to enter, at <u>https://equine.ca.uky.edu/</u>or by following UK Ag Equine Programs' Facebook, Instagram and Twitter accounts. They can direct questions to <u>equine@uky.edu</u>.

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### **EQUINE SCIENCE AND MANAGEMENT**





# DEJA ROBINSON

Intern, Kentucky Horse Racing Commission

Equine senior Deja Robinson has spent the month of October exploring her new internship at the Kentucky Horse Racing Commission. The opportunity for this position was provided by the Ed Brown Society, which works to promote diversity within the equine racing industry.

"This is a goal that is near and dear to my heart. I take great pride in serving as a role model to minority youth and other college students aspiring to work within the industry," Robinson said.

The KHRC is an independent agency of state government charged with regulating the conduct of horse racing and parimutuel wagering on horse racing and related activities within the Commonwealth of Kentucky.

It oversees and regulates all types of equine racing, including Thoroughbred, Standardbred, Quarter Horse, Paint horse, Appaloosa and Arabian Horse races.

According to Robinson, her role as an intern with KHRC has provided her with extensive shadowing, learning and working experiences.

"As an intern at the Kentucky Horse Racing Commission, I am exposed to a variety of aspects of the racing industry, especially regarding regulation. This internship opportunity has allowed me to expand my knowledge and understanding of the industry by shadowing

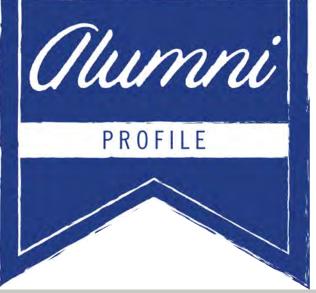
understanding of the industry by shadowing commissioners across the various divisions and committees. Due to this, I have been able to further develop key skills including communication, adaptability, networking and professionalism skills," Robinson said.

She says that she enjoys the ability to learn something new every day and working handson at local racetracks.

Sydney Carter, a senior studying Equine Science and Management with a minor in journalism, is a communications and student relations intern with UK Ag Equine Programs.



### EQUINE SCIENCE AND MANAGEMENT





### **Averie Levanti** Pennsylvania Horse Breeders Association Office Manager

HOME : Pennsylvania GRADUATED: 2021



# How did you first become involved in the horse industry?

I read Bill Nack's book on Secretariat when I was 12 years old, and it sparked my interest in the thoroughbred industry. I started doing photography and blogging jobs at 15. I bought that book on a whim one day, and I hadn't even intended to go to the book store. Thinking what my life would be like now if I didn't make what was then such an insignificant decision kinda makes my head hurt.

# Was there a turning point for you in college that had an impact on your career?

I wasn't sure exactly what I wanted to do in the thoroughbred industry when I started college. I had farm jobs working hands-on while in school, and while I enjoyed it, I realized it was not what I was meant to do long term. I started with some remote marketing jobs my final couple years of school, and towards the end of my senior year I realized I would most enjoy an administrative position, particularly for a breeding farm, sales company, or breeders association. That is exactly where I ended up.

### What led you to this position after graduation? Did you have certain internships, professors or classes that influenced you?

I'm the office manager for the Pennsylvania Horse Breeders Association. The position was opening up the same week as graduation, and I found out from my boss for my part time job/internship with the Pennsylvania Horse Racing Association. I interviewed two days after graduation, and started three days after that.

# What are your responsibilities in your current position? What do you like most about your position?

My main responsibility is making sure everything is correct and in order for registrations and memberships. I gather all of the necessary paperwork before the horses proceed in the registration process. Breeders need to register their horses with our association to be eligible for the state bred breeding fund. In addition, I make sure to keep the office stocked and help coordinate any events or meetings that we are hosting. My favorite part of my job has to do with the sales. I keep track of which horses we have entered in public auctions, make sure they are registered before they sell, and then record the results.

### Vhat advice do you have for current equine science and management students?

Take advantage of what Lexington has to offer! There is no better place to be in terms of gaining experience and networking in the horse industry. Simply having the opportunity to live in Lexington taught me more about the industry than I ever could have imagined.



Ag Equine Programs College of Agriculture, Food and Environment

### Join us for the 12th annual

# **Pastures Please!!**

...hosted by UK Cooperative Extension in conjunction with UK Ag Equine Programs

February 21, 5:30-8 p.m. Fayette County Extension Office 1140 Harry Sykes Way, Lexington, Kentucky

PROGRAM

5:30 Refreshments 5:45 Welcome 6:00 Pasture Health, Dr. Ray Smith 6:45 Controlling Foxtail & Buttercup, Dr. Bill Witt 7:15 Plants that Shouldn't be in Your Pastures, Dr. Megan Romano

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### **NEED SOME ASSISTANCE WITH PURCHASING YOUR RIDING APPAREL?**



The Rider's Closet provides show and schooling (lesson) apparel to all riders who need assistance with the cost of participating in equestrian activities. Requests are fulfilled by mail at no charge to the recipient. To apply and get more information on this program, please click <u>here</u>.



### VOLUNTEER SPOTS OPEN FOR FIELD AND PASTURE CLEAN UP FROM TORNADO DAMAGE AT UK RESEARCH AND EDUCATION CENTER

We are beginning field and pasture cleanup at UK Research and Education Center located in Princeton in earnest. This is a monumental task, and we need help. We have created a scheduling tool to space volunteers out over the next month. You can volunteer for more than one day if you would like.

Field cleanup at UKREC will be weather dependent and will begin at 8:30 a.m. on the days specified in the scheduling tool. For coordination purposes we are asking volunteers to sign up. Please meet across the street from the original experiment station building located at 1205 Hopkinsville Street, Princeton, Kentucky. Please wear solid footwear and weather appropriate attire. If possible, please bring leather work gloves. We will be handling metal and lumber with nails. For more information or to confirm weather cancellations contact Chris Teutsch at Chris.Teutsch@uky.edu or 270-963-0066 (cell). Note: If you arrive later than 8:30 am, just call and we will find you.

Please remember that cleanup is weather dependent, so if it is bitterly cold, raining or snowing, cleanup for that day will likely be cancelled. Link to UKREC Field and Pasture Scheduling Tool is <u>here</u>.

### **SUICIDE PREVENTION TRAINING AVAILABLE TO STUDENTS**

Check out this unique B.A.R.N Gatekeepers training - Bring Action Right Now to Suicide Prevention - available to students. Participants will gain knowledge on understanding and preventing suicide in addition to learning how to support each other. In addition to QPR training, experiences will include community building, learning about ourselves through equine assisted learning and the value of radical care for ones' self and others.

See the flyer for dates and times as well as activity descriptions. For more information, contact: Lee Anne Walmsley or The Center for Interprofessional Health Education at <u>CIHE@l.uky.edu</u> Registration is FREE and the deadline to register is Feb. 1.

### **CLUBS AND TEAMS NEWS**

### Cats hit a three-peat

On Jan 29, the UK Saddle Seat Team traveled to Prospect, Kentucky, to compete at the University of Louisville hosted January ISSRA Horse Show. Together, we earned 65 points to win our third straight show of the season. Special shout outs are in order to Piper McGehee, who earned High Point Senior Rider, and Brooke Anderson, who won Reserve Junior High Point Rider!

### UK Eventing team looks forward to new season

After a successful 2021 season, the University of Kentucky Club Eventing team is now focusing on training, its accomplishments and what's to come in 2022. Read the story in its entirety <u>here</u>.

### **UK AG EQUINE PROGRAMS IN THE NEWS**

### Ed Brown Society establishes horse industry internship for minority college students

The Ed Brown Society is a local organization that promotes minority participation in the horse racing industry. This month, the non-profit is announced a partnership with a racing industry leader that will provide in-depth internships for minority students at Gulfstream Park in south Florida.

Two selected interns from the University of Kentucky are chomping at the bit for the opportunity. 1/ST is committing \$150,000, over several years, to cover all costs so select students can have a paid internship within the horse racing industry.

Charles Churchill is majoring in equine science and management at UK. He was selected for the program. He wants to focus on how tracks advertise exotic wagering. Deja Robinson is another UK equine science major selected for the program. She's interested in the veterinarian side. Read and watch more <u>here</u>.

### 'Social Licensing' The Day Two Focal Point of Baffert/NYRA Hearing

The concept of perception versus reality has been a core plank on both sides of the highly publicized "detrimental conduct" case ever since the New York Racing Association (NYRA) first tried to banish trainer Bob Baffert eight months ago. On Tuesday, the second day of a hearing process that could lead to Baffert's exclusion from New York's premier tracks, the murky interpretation of who should be considered the true victim and which entity is in need of protection from harm rose to the forefront in the form of arguments over "social licensing" that at times played out in tense and pointed fashion.

Although Baffert is the most easily identifiable Thoroughbred trainer in North America, the key witness who testified Jan. 25 was not at all a recognizable name within the sport. Some 7 1/2 hours of testimony and cross-examination from four witnesses were anchored by about 90 minutes of debate regarding the opinions and PhD expertise of Dr. Camie Heleski, a University of Kentucky equine sciences professor who specializes in what the general public thinks of as horse racing.

See the story in its entirety here.





## Ag Equine Programs

College of Agriculture, Food and Environment

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# EQUINE SCIENCE Review



College of Agriculture, Food and Environment CA.UKY.EDU/EQUINE @Ukagequine on Facebook/twitter

**PROTECT YOUR OLDER HORSE THIS WINTER WITH THESE TIPS, 3** Preparing horses for the cold is important, especially as they age.

UK'S HONORS FOUR RETIRING TITANS OF EQUINE RESEARCH AND SERVICE, 7 Four esteemed faculty members will soon hang up their lab coats.

WARMER WEATHER MAY IMPACT EARLY FOALING MARE PASTURES, 13 Carefully consider how recent

weather might affect tall fescue.

DEMAND FOR WILD HORSES AND BURROS STUDIED, 14 Number of wild horses, hurros con

Number of wild horses, burros continues to exceed BLM levels.





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### DESIGN

Jordan Smith, marketing manager, UK College of Agriculture, Food and Environment

Equine Science Review is a monthly College of Agriculture, Food and Environment newsletter that highlights important equine work happening at the University of Kentucky.



Photo courtesy Dr. Jimmy Henning.

### **PROTECT YOUR OLDER HORSE THIS WINTER WITH THESE TIPS**

Winter is upon us, or on the horizon. For the owners of horses 15 and up, this means bracing for some of the challenges which may hinder older equines. Preparing horses for the cold is important, especially as they progress in age.

"We must take into account several important considerations for preparing and maintaining older horses throughout the cold season," said Amanda Adams, PhD, associate professor and MARS Equestrian Fellow in the Department of Veterinary Science, who maintains a herd of senior horses as part of her program at the Gluck Equine Research Center.

### "SOME OF THE MOST IMPORTANT POINTS TO CONSIDER INCLUDE BODY CONDITION AND NUTRITION, DENTAL CARE, PARASITE CONTROL, VACCINATION STATUS, EXERCISE AND HEALTH MONITORING."

Beginning with body condition and nutrition, first assess a horse's body condition score. While a little extra poundage won't hurt going into winter, too much could bring problems.

"Is your horse too thin or too fat? Maybe it's just fine as is," Adams said. "This is a call you have to make before winter sets in and then feed appropriately. If you don't feel comfortable making this call yourself, involve your veterinarian or a nutritionist."

Adams said that horses at a body condition score of 5 or greater will have some extra fat stores that can provide insulation during the winter months; however, if the horse is overweight, insulin dysregulation could become a problem.

She recommends owners of senior horses to determine the horse's metabolic status. Is the horse insulin dysregulated or



PHOTO COURTESY UK COLLEGE OF AGRICULTURE, FOOD AND ENVIRONMENT.

affected by Pituitary Pars Intermedia Dysfunction? This information will also help guide in how you feed and manage the horse throughout the winter. If the horse is on the thinner side with body condition less than 5 going into winter, increase the calorie intake slowly to improve his BCS. This can be done by providing additional forage, concentrates, especially those designed for senior horses or by adding sources of oil or fat supplements. Also consider pecking order and make sure your senior horse is not at the bottom of order. as this can make a difference in body condition. Access to shelter and blanketing can also help in maintaining condition, as less calories are being used to maintain body temperature.

During cold months, it's important to provide a salt/mineral lick and make sure that they are always available and accessible. Likewise, make sure water sources aren't frozen over and have good footing around them. Sufficient water intake in the winter for senior horses is important to help prevent impaction colic.

An older horse's teeth need to be examined at least twice a

year, one of which should take place prior to cold weather setting in. This will help them chew and consume hay adequately, allowing proper utilization of energy sources needed to stay warm in the winter.

"Dental care is important especially if you notice your older horses starting to drop grain, quid or lose weight," Adams said. "Proper dental care also helps prevent things such as choking and colic. Hoof care is important as well since bad feet can lead to large bills if not properly taken care of. When considering hoof care, you should probably think about pulling or changing their shoes to prevent slipping on ice. Adding borium or snow pads to protect their sole might also be a consideration. Most importantly, keep an eye on vour horses' feet daily and remove ice accumulation as needed."

Parasite control is critical, as older adults are likely to harbor more parasites. An example is a study by Adam's team from UK that found older horses demonstrate statistically higher fecal egg counts compared to middle-aged adults. If given anthelmintic treatments, however, FECs declined significantly. It might be beneficial to deworm your horse after the first frost, up to three times a year taking into consideration FECs. Higher parasite load could also be contributing to poor body condition in the senior horse.

Make sure to maintain a regular vaccination program. Adams' group has shown that senior horses have reduced immune responses to vaccination and are at risk for increased susceptibility to respiratory illness, in particular equine influenza. Horses with Pituitary pars intermedia dysfunction, also known as Cushing's disease, are likely to have even further reduced immune response to vaccinations and increased susceptibility to infections.

"If you have a higher risk senior, think about having your vet administer a booster for risk-based vaccines," Adams said. "These include EIV, equine herpesvirus-1 and potentially West Nile virus, every six months, particularly if your horses are showing or co-mingling with other showing horses during the winter months."

Like humans, if older horses don't get their share of exercise, then the less spritely they will become. During the winter months it is important to prepare your horse for exercise with ample warmup and cool-down periods. After finishing, cool your horse out completely. Remember, use common sense when judging riding conditions, as older horses do not adjust well to stressful conditions.

Finally, monitor senior horses closely for health conditions which you might not have previously considered. These include respiratory illnesses, skin conditions, signs of colic and arthritis. As horses progress in years, a phenomenon called Inflamm-aging happens.

"Inflamm-aging is a low-grade, chronic inflammation," Adams said. "Inflamm-aging, like in humans, could be contributing to age-related conditions such as arthritis, however we have yet to understand the full picture in the senior horse. We have recently shown that season impacts the levels of inflammation and that levels are quite high during winter. Work with your veterinarian to determine if your older horse could benefit from anti-inflammatory therapies to help with arthritis discomfort. In the meantime, we are working on understanding if there are any effective, natural anti-inflammatories that would help the older horse." As horses age, we want to make sure that they are taken care of to keep them living a longer and healthier life. That protection starts by keeping them safe this winter. For more information on senior horse care and preparing your horse for winter, contact Adams at amanda.adams@uky.edu.

| Jordan Strickler is an agriculture communications specialist within UK's College of Agriculture, Food and Environment.

### WINTER CAN MEAN POOR FOOTING FOR HORSES

Winter is here, which means it's time to talk muddy fields. Those familiar with horses know that cold seasons can make your farm quite muddy. Mud is not ideal ground for a variety of reasons. First off, it can create erosion of topsoil and the loss of organic matter, while increasing soil compaction. Second it can cause weight loss as horses who traverse through mud expend more energy. They also can suffer because mud on the animals' coats makes it more difficult for them to regulate their body temperature. This increases the amount of energy they need to generate heat for warmth in the winter. Mud can also up the risk of slipping and falling. And

don't forget lost shoes, the bane of most horse owners.

"In winter you get the same amount of rain as you would in the summer, however, you don't have the temperatures to evaporate it," said Stephen Higgins, PhD, director of environmental compliance for the University of Kentucky College of Agriculture, Food and Environment's Agricultural Experiment Station. "When you mix water, soil and foot traffic, you get a lot of mud."

Fortunately, there is a solution: heavy-use traffic pads.

"Traffic pads are a great solution," Higgins said. "You have many material choices for heavyuse pads. Some of these include concreate, plastic traffic grid and



PHOTO COURTESY DR. JIMMY HENNING.

geotextile fabric and rock. However, for horses, I would not recommend concrete as they need softer surfaces. The material you use varies depending on many factors, including material availability, installation costs and the size of your operation."

Pad thickness depends on the type of livestock you have, stocking density and whether the area also gets a lot of equipment traffic. Higgins says with equine traffic, an eight-inch-thick layer of dense grade aggregate placed on a six-toeight-ounce non-woven geotextile fabric would be the best course of action.

Geotextile fabrics are generally used in road construction projects for subgrade stabilization. The geotextile, which is used to separate the soil from the rock layers, is a key component for effective long-term performance of the traffic pad. If the geotextile is not used, the rock material will sink into the ground over time and mud will seep up through the voids. This would negate all of the work (and money) which had been dedicated toward creating safe footing for horses in the first place. The purpose of geotextile fabric is to separate the rock from the soil, provide reinforcement, and friction, while providing drainage for the rock matrix.

Ideally pads would be located on a summit and not a sloping area. If it must be constructed in a hilly location, the area should be leveled to allow runoff to move across as sheet flow to reduce channeling and erosion of the rock pad.

However, like everything else, COVID-19 has thrown an unforeseen wrench in the works.

"Some things aren't as cost effective anymore," Higgins said. "The price of plastic resins has gone up 30% in the past year. So now we've had to look at other ideas. Some are a little inventive, such as cinder blocks."

Higgins said that one idea is to set the blocks on the ground on filter fabric and then backfill it with rock. In addition to providing infiltration, cinder blocks absorb moisture from the environment. The blocks end up acting like sponge in that they wick moisture. This type of footing surface is an idea for indoor areas. A bench top lab study suggested that each block could actually store an entire gallon of liquid. It's not without its drawbacks, however. This type of flooring might also draw moisture to the surface near an animal and bedding.

"We all want to take care of our horses," Higgins said. "One of the best ways to do that in the winter is to take care of their footing. Pads can really save owners plenty of headaches down the road." More information for installing pads for horses can be found online <u>here</u>.

| Jordan Strickler is an agriculture communications specialist within UK's College of Agriculture, Food and Environment.

### EQUINE INNOVATORS PODCAST: ROTAVIRUS ON THE MOVE IN FOALS

In this episode Emma Adam, DVM, PhD, DACVIM, DACVS, assistant professor, research and industry liaison at the Gluck Equine Research Center, describes the research that identified a novel strain of rotavirus in foal diarrhea cases this year.

This <u>podcast</u> is the 12th episode in our "Equine Innovators" podcast series, brought to you by Zoetis. You can find "Equine Innovators" on TheHorse.com, Apple Podcasts, Spotify, Stitcher, and Google Podcast.



<u>About the researcher:</u> Adam is an assistant professor at the Gluck Center and the equine outreach veterinarian for UK's Department of



PHOTO COURTESY UK COLLEGE OF AGRICULTURE, FOOD AND ENVIRONMENT.

Veterinary Science. Her career focuses on the health and well-being of the equine athlete, and she has worked in four countries on three continents.

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### UNIVERSITY OF KENTUCKY RISES ABOVE TORNADO AFTERMATH

In the midst of utter destruction caused by the Dec. 11 tornado outbreak, University of Kentucky employees continue to press on, offering help where and when their fellow Kentuckians need it the most.

The UK Research and Education Center in Princeton took a direct hit from the powerful tornado that began in northwestern Arkansas and carved a path of destruction across the western half of Kentucky. UKREC employees, led by director Carrie Knott, worked through the weekend, securing and caring for animals, assessing damage and offering support.

"Our hometown heroes of hope—our faculty, staff and Extension agents in our Western Kentucky communities have rallied to assist others even as we were dealing with damages to critical UK facilities in Western Kentucky," said UK President Eli Capilouto, PhD. "As the University for Kentucky, we understand how important faculty and staff at the UK Research and Education Center and Cooperative Extension Service are to relaying educational information to their communities. We are committed to rebuilding, helping the area recover and emerging stronger than before."

"The center is the home to a group of very dedicated UK employees, and I commend Dr. Knott and her staff for their heroic weekend recovery efforts," said Nancy Cox, PhD, dean of the UK College of Agriculture, Food and Environment and UK vice president for land-grant engagement. "While the center won't be the same for some time, the college is committed to helping our employees and communities recover from these



AERIAL VIEW OF THE UK RESEARCH AND EDUCATION CENTER AFTER IT TOOK A DIRECT HIT FROM A WEEKEND TORNADO. PHOTO BY MATT BARTON, UK AGRICULTURAL COMMUNICATIONS.

VIDEO OF DECEMBER 11 TORNADO AFTERMATH HERE.

PHOTO GALLERY OF DECEMBER 11 TORNADO AFTERMATH HERE.

devastating events and serving the Western Kentucky agricultural community."

While the physical structure that housed the UKREC is gone, the center has been, and always will be, vital to Kentucky agriculture. As a testament to the importance of the center to the state's agriculture industry, two temporary office buildings and two temporary storage buildings will be placed on-site Dec. 14 for UKREC personnel.

"The outpouring of community support has been very humbling to us," Knott said. "We are not closing our doors, but we will look a little different and be a little more fragmented at least for the near future."

Due to the number of debris, officials ask that the public stay away from the center as the area is unsafe and structurally unsound.

The center was established

in 1925 on nearly 1,300 acres about one mile from downtown Princeton. In 1980, the Rottgering-Kuegel Agricultural and Extension Building was added and housed the center's nearly 50 staff and hosted countless extension and area meetings. That facility underwent a major renovation and addition to house the UK Grain and Forage Center of Excellence, which opened in 2019. Since its inception, numerous stakeholders have provided strong support to the center and critical funding for many of its improvements.

"The Kentucky agricultural community is a strong community. It is a kind community, and it is a generous community," said Chad Lee, director of the Grain and Forage Center of Excellence. "We are going to rely heavily on them to help us get through this as we work to build anew. Our hearts are broken but not our spirits."

Over the years, scientists at the center have spearheaded many important research endeavors including numerous no-till research projects, precision agriculture application studies and a soil fragipan research breakthrough. Center specialists have been the area farmers' go-to resource for research-based information in agronomics, forages, beef management, disease control, pest control, precision agriculture, grain storage systems, soil fertility and grain marketing.

Numerous counties are dealing with the aftermath of the destructive tornadoes. The UK Cooperative Extension Service is diligently working with area organizations to meet the needs of tornado victims. Extension has partnered with the Kentucky Department of Agriculture to offer support for affected farmers.

### HOW TO HELP:

Those who wish to donate farm supplies should contact their local extension office. Extension agents will deliver products to the KDA for distribution to farm organizations working to meet the needs of impacted farmers.

Kentucky 4-H has a <u>4-H'ers Helping</u> <u>4-H'ers Relief Fund</u> that is collecting donations to help affected 4-H members, families and staff.

The Kentucky Division of Emergency Management is also accepting donations and relief effort volunteer applications. Individuals can offer to donate supplies or apply to volunteer <u>here</u>.

The Kentucky Department of Agriculture has partnered with the Kentucky Farm Bureau to develop a <u>GoFundMe account</u> to provide monetary support for affected farmers. Donations are tax deductible. Individuals, who wish to make monetary donations to the tornado victims, may do so by donating through <u>UK's Office of</u> <u>Philanthropy</u>.

Individuals may donate to help affected UK students <u>here</u>.

UK also offers the C.R.I.S.I.S. (Crisis Relief in Situations Involving Staff and Faculty) Program to help UK employees experiencing personal hardship. UK faculty and staff may request assistance <u>here</u>.

Individuals may also mail checks with a comment to support UK CAFE Tornado Relief to UK Philanthropy, P.O. Box 23552, Lexington, KY 40523.

| Source: Dec. 13 UK College of Agriculture, Food and Environment news release. Katie Pratt is an agriculture communications specialist.

### UK'S DEPARTMENT OF VETERINARY SCIENCE HONORS FOUR RETIRING TITANS OF EQUINE RESEARCH AND SERVICE

Four esteemed faculty members within the University of Kentucky's Department of Veterinary Science will soon hang up their lab coats in retirement over the next few months, closing chapters in each of their professional lives that have been marked by indelible research and service impacts to the equine industry.

At UK's Spindletop Hall in Lexington, Kentucky, Nov. 2, an audience of veterinarians, equine health professionals, fellow academicians and friends gathered to honor Barry Ball, DVM, PhD, Dipl. ACT, Albert G Clay Endowed Chair in Equine Reproduc-



LEFT TO RIGHT, DRS. PETER TIMONEY, CRAIG CARTER, DAVID HOROHOV AND BARRY BALL. PHOTO COURTESY UK COLLEGE OF AGRICULTURE, FOOD AND ENVIRONMENT.



PHOTO COURTESY UK COLLEGE OF AGRICULTURE, FOOD AND ENVIRONMENT.

tion at the Gluck Equine Research Center; Craig Carter, DVM, PhD, Dipl. ACVPM, director of the UK Veterinary Diagnostic Laboratory; David Horohov, PhD, chair of the Department of Veterinary Science at UK, director of the Gluck Center and Jes E. and Clementine M. Schlaikjer Endowed Chair; and Peter Timoney, MVB, PhD, FRCVS, Frederick Van Lennep Chair in Equine Veterinary Science at the Gluck Center.

They have served UK and the international equine industry for a collective 84 years, time marked by vast scientific advancement on some of the most pressing issues facing the industry.

"Equine is a special part of UK. The university has been conducting research to protect the health and well-being of the horse since the early 1900s when the Department of Veterinary Science was established. In 1985, a significant investment was made to further equine research by establishing the Gluck Equine Research Center. The Gluck Center is one of three facilities in the word exclusively dedicated to equine research. Located in the Horse Capital of the World, and arguably the horse health capital of the world, the research capabilities at the Gluck Center are unparalleled," said Vice President for Land-Grant Engagement and Dean of the College of Agriculture, Food and Environment during the ceremony. "While the facilities have continued to grow, it is our people that truly make this place a world-renowned epicenter for equine health and research. Our heartfelt appreciation and best wishes go to each of our retirees who have contributed so much to the equine and veterinary science community."

"Drs. Ball, Carter, Horohov and Timoney have given tremendously to the department and to the equine and livestock industries that we serve. Without question, replacing the expertise of these four eminent faculty members will be a major challenge for the Department of Veterinary Science over the next several years," said Daniel Howe, PhD, incoming interim chair of the Department of Veterinary Science and interim director of the Gluck Center. "It has been a privilege to work with and learn from each of them, and I wish them the best in their well-deserved retirement."

"A true testament to the iconic footprint of the Gluck Equine Research Center as an international resource into our insight and understanding of the health of the horse rests with the quality of its esteemed faculty. This group of retirees leaves an indelible mark on the landscape of equine research, and we thank them for all they have done on behalf of the horse," said Stuart Brown, DVM, Keeneland's vice president of equine safety and current chair of the Gluck Equine Research Foundation Board.

"We were fortunate to get to celebrate the careers and achievements of four of these individuals who have dedicated themselves to furthering our mission at the Gluck Center through their scientific discoveries that have resulted in the improvement of equine health. These accomplishments were made possible through the visionary leadership of those who have helped to lead this great institution in the past, such as Dr. Peter Timoney, and we have been fortunate over the past six years benefiting from the sage leadership of Dr. David Horohov, who retires as the Chairman of Veterinary Science and Director of the Gluck Center at the end of this year. His guidance of the program, especially in light of challenges experienced in the past two years of the pandemic, have been truly remarkable in sustaining this mission and preparing the Gluck Center to prosper in the years to follow in sustaining the reputation of this vital resource for the equine industry," Brown said. During the retirement ceremony, prominent members of the equine health community talked about the impact of each of the retiring faculty members and led a toast in their honor.

Tom Riddle, DVM, of Rood & Riddle Equine Hospital spoke about Ball's impact on equine reproduction research, citing his work on nocardioform placentitis as a recent example of the impact he has had on the industry.

Bob Stout, DVM, retired Kentucky State Veterinarian, toasted Carter and shared the important work in disease surveillance that the UK VDL provides to the Commonwealth of Kentucky and its livestock industries.

Brown thanked Horohov for his service to Kentucky's equine industry, his leadership of the Gluck Center over the past seven years and highlighted the Gluck Center's recent work with a novel Rotavirus B strain discovered in Central Kentucky during the spring of 2021.

Finally, Chauncey Morris, executive director of the Kentucky Thoroughbred Association and Kentucky Thoroughbred Owners and Breeders', shared remembrances of his time traveling with Timoney, who he called a rock star in other countries, known as THE guy who was the equine infectious disease expert. He also drew laughter from the audience by ribbing the Irish-born Timoney for eschewing casual or even business casual attire in favor for his daily suit and tie. Below is more about each of the retirees, including some of their thoughts as they transition into this next chapter of their lives.

### BARRY BALL, DVM, PHD, DIPL. ACT, AL-BERT G CLAY ENDOWED CHAIR IN EQUINE REPRODUCTION AT THE GLUCK EQUINE RESEARCH CENTER

"It has been a tremendous opportunity to be a faculty member at the Gluck Equine Research Center. I have particularly enjoyed the chance to work with veterinarians, farm managers, owners and farm personnel to address some of the problems related to equine reproduction in Central Kentucky," Ball said. "The support of this community for research directed toward the welfare and good of the horse is, in my experience, unparalleled. "It has also been a great opportunity to work with the numerous graduate students, post-doctoral scholars and visiting scientists who have been in the lab. A number of these have gone on to faculty positions in veterinary medicine, which is important to ensure future research expertise related to the horse," he said.

Ball's official retirement will be in February 2022.

"Post-retirement, my wife, Heidi, and I will continue to work with horses on our Woodford County farm. I plan to continue a long-time



DR. BARRY BALL. PHOTO COURTESY UK COLLEGE OF AGRICULTURE, FOOD AND ENVIRONMENT.

passion for woodworking and furniture building, and we look forward to continued involvement with the equine community in Central Kentucky," he said.

Ball is a Diplomate of the American College of Theriogenologists. He has received numerous awards, including the Smith-Kline-Beecham Award for Research Excellence, the Excellence in Equine Research Award from the American Veterinary Medical Association, the Schering-Plough Award for Outstanding Research from the World Equine Veterinary Association, the Norden-Pfizer Distinguished Teacher award from UC-Davis and the Theriogenologist of the Year award. Ball was a Fulbright Distinguished Scholar at the University of Cambridge during 2004-05. He is a past chair of the International Equine Reproduction Symposium Committee, and he is a past president of the American College of Theriogenologists.

In 2010, Ball was appointed as the first Clay Endowed Chair in Equine Reproduction at the Gluck Center. His current research emphasis has been directed toward reproductive endocrinology and pregnancy loss in mares.

Prior to coming to UK, Ball served as the Hughes Endowed Chair in Equine Reproduction at the University of California, Davis, a position he had held since 1996. Before that, he was on the faculty at Cornell University from 1987-1996.

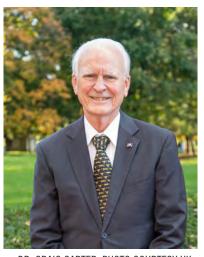
Ball earned his DVM from the University of Georgia in 1981 and completed a theriogenology residency at the University of Florida and his graduate training at Cornell University.

His research is documented in more than 200 refereed research publications. He has served as primary mentor for 10 PhD students, six MS candidates and 17 post-doctoral or visiting scholars. He also mentored 16 clinical residents who are board-certified by the American College of Theriogenologists. Of his trainees, 10 serve as current or past faculty members in veterinary medicine in the U.S., Canada, Europe and South America.

### CRAIG CARTER, DVM, PHD, DIPL. ACVPM, DIRECTOR OF THE UNIVERSITY OF KENTUCKY VETERINARY DIAGNOSTIC LABORATORY

"It has been the greatest honor and privilege to have spent 17 blessed years here at the University of Kentucky. There have been so many exciting challenges, projects, success stories, incredible students and wonderful people to work with all over the UK campus and around the Commonwealth," Carter said. "I am so grateful for the amazing support by Dean Nancy Cox and her team to help grow our laboratory's client base, better serve our animal agricultural stakeholders and for making the funds available to double the size and quality of our facilities.

"I am eternally indebted to Dr. Robert Stout, Kentucky State Veterinarian recently retired, for his excellent leadership and for his faithful support and sage guidance



DR. CRAIG CARTER. PHOTO COURTESY UK COLLEGE OF AGRICULTURE, FOOD AND ENVIRONMENT.

for our laboratory," he said

"A million thanks go out to our veterinary, farm and companion animal clients who confide in the quality of our diagnostic services, in a quest to preserve the health and welfare of animals, large and small. I am so proud to have been surrounded by such a brilliant, conscientious and devoted faculty and staff that work so hard every day to sustain animal health and human health, in the spirit of One Health. My beloved wife Ronda and I are looking forward to spending the rest of our years on Freedom Farm in Spears, Kentucky," he said.

Carter had originally planned to step down at the beginning of 2021, but the arrival of COVID-19 changed those plans.

"I just couldn't abandon my troops in the middle of a war," he said.

Carter now plans to phase out his retirement to a 50% involvement to help transition the leadership role to a new director and help launch a new metagenomics laboratory.

Carter earned his DVM in 1981 from Texas A &M University. After completing his degree, he opened a solo large animal ambulatory medicine and surgery practice in Texas for five years. He joined the Texas Veterinary Medical Diagnostic Laboratory (TVMDL) as a clinical associate, completing his Master's in Epidemiology, a PhD in Veterinary Public Health and passed his board certification in Veterinary Preventive Medicine.

In 1985, Carter established the Department of Epidemiology and Informatics at the Texas VDL and served as department head. In that role, he oversaw the design, developmen, and implementation of two custom enterprise-wide laboratory information management systems (LIMS) which included electronic clinical reporting, near real-time disease monitoring and mapping for the laboratory and its clients. He conducted infectious disease epidemiological investigations and provided monitoring for confirmed livestock, companion animal and zoonotic diseases occurrences across the state. Carter established the first-ever formal relationship with the Texas Department of Health to provide awareness of zoonotic animal diseases posing a threat to human populations. For 25 years, he participated in the TVMDL necropsy service rotations.

In 2005, he was recruited to UK's Department of Veterinary Science as a professor, establishing a diagnostic epidemiology unit at the UK VDL in the wake of Mare Reproductive Loss Syndrome. In 2007, he was appointed director. In that role, he oversees lab operations, major construction projects, infectious disease research (\$6 million in funded projects), manages and teaches in a cooperative teaching program with Lincoln Memorial University CVM, and chairs/serves on graduate student committees (20 since 1988). Carter served as president of the American Association of Veterinary Laboratory Diagnosticians in 2011. He also held the position as executive director for the World Association of Veterinary Laboratory Diagnosticians from 2000-2017, overseeing the planning for eight international meetings. He served as the executive director for 10 years and is the immediate past president of the American Veterinary Epidemiology Society (AVES). His research interests include infectious disease epidemiology, anti-microbial resistance, food security, electronic animal health monitoring, computer-based clinical decision support and laboratory information systems. He is active internationally, has worked closely with several OIE Committees, aiding in laboratory capacity building and other assignments in more than 40 countries in civilian and military capacities.

Carter served on active and reserve duty in the U.S. Air Force and U.S. Army from 1967-2009, including three combat deployments, retiring as a full Colonel (awarded the Legion of Merit).

### DAVID HOROHOV, PHD, CHAIR OF THE DEPARTMENT OF VETERINARY SCIENCE AT UK, DIRECTOR OF THE GLUCK EQUINE RESEARCH CENTER, AND JES E. AND CLEMENTINE M. SCHLAIKJER ENDOWED CHAIR AT THE GLUCK EQUINE RESEARCH CENTER

"Now that I am preparing to retire, I look back to my first visit to the Gluck Center in the early 1990s. I regularly read the papers produced by the Gluck faculty and was excited about the opportunity to meet them. Happily, I was able to return multiple times in the subsequent years having established several collaborations with the faculty. Needless to say, I was very pleased to join the department in 2003 as the William Robert Mills Chair in Equine Infectious Disease," Horohov said.

"Being here has not only allowed me to continue and expand my collaborations with the Gluck faculty, but also provided the opportunity to work with local equine veterinarians, farm managers and horse owners. These opportunities,





DR. DAVID HOROHOV. PHOTO COURTESY UK COLLEGE OF AGRICULTURE, FOOD AND ENVIRONMENT.

combined with the resources provided by the department, allowed my research program to greatly expand," he said. "Though quite content with being a researcher, I accepted the opportunity to serve as the chair of the Department of Veterinary Science and director of the Gluck Center in 2014.

"My goal during my tenure as chair and director has been to continue the overall mission of the Gluck Center and to build upon its legacy as the leading institution for equine research. We have done that through the recruitment of exceptional faculty and students to our program and by modernizing and updating some of our facilities," he said. "While this will be an ongoing effort, I believe we have made significant progress towards this goal and the future remains bright. Now I will be pursuing other goals during my retirement, but I will always reflect back on all that the Gluck Center and its faculty provided me during my time there." Horohov earned his BS from Penn State, his MS from Purdue University and a PhD from the University of Tennessee working on the regulation of the immune response to herpes simplex virus.

He was a staff fellow at the Food and Drug Administration in Bethesda, Maryland, before accept-

ing a faculty position at the School of Veterinary Medicine at Louisiana State University. In 2003, he moved to UK to become the W.R. Mills Endowed Chair in Equine Infectious Disease and in 2013, he accepted the position of Schlaijker Chair in Equine Immunology. Horohov now serves as the chair of the Department of Veterinary Science and the director of the Gluck Center, where he oversees the activities of 24 faculty. His research program focuses on the immune response of horses to various infectious and non-infectious diseases. His laboratory was responsible for the cloning and sequencing of a number of equine cytokines and the development of RT-PCR assays for their detection. One particular focus of his equine career has been around Rhodococcus equi, and the research breakthroughs in his laboratory have been instrumental in furthering our understanding of why certain horses are impacted by the disease. Some of his ongoing work has been focused on equine safety, specifically exercise induced inflammation and its contribution to equine injury. This work is just one example of how his research has evolved when needed to serve the equine industry.

Horohov has authored or co-authored more than 160 scientific articles. He has made numerous research presentations at national and international meetings and is recognized for his expertise in equine infectious diseases and immunology. He has been the principal investigator on more than 50 externally funded research grants and contracts and the mentor of 15 graduate students and six post-doc students. He has received awards and recognition for both his research and teaching activities. PETER TIMONEY, MVB (HONS), MS, PHD, FRCVS, PROFESSOR, FREDERICK VAN LENNEP CHAIR IN EQUINE VETER-INARY SCIENCE AT THE GLUCK EQUINE RESEARCH CENTER



DR. PETER TIMONEY. PHOTO COURTESY UK COLLEGE OF AGRICULTURE, FOOD AND ENVIRONMENT.

Timoney, who has been in phased retirement for the past two years, reflected on a lifetime of serving the equine industry, the people he has met and the changes of the equine industry over time.

"I feel so fortunate in life that I chose a profession that kept me challenged and rewarded, especially with people I've met and developed friendships and relationships with. That has been the real pleasure of it," he said. "I feel the same sense of anticipation and fulfillment every day I walk into the Gluck Center, whether it's a Monday morning or a Friday afternoon.

"I have benefitted more than I think I have provided others," he said.

Timoney said he plans to travel some, and that he has an interest in his chosen field that will never leave him. In many ways his retirement will look a lot like the years he spent actively working. He plans to always be reading and learning and thinking about the challenges in his field.

"For me it has always been

about serving the industry and about the health and well-being of the horse," he said.

A native of Dublin, Ireland, Timoney earned his MVB (Hons) from the National University of Ireland (U.C.D.) in 1964. Shortly after graduating, he moved to the U.S. to pursue graduate studies at the University of Illinois' Center for Zoonosis Research, obtaining his MS degree in virology in 1966. Returning to Ireland, he accepted appointment at the Irish Department of Agriculture's Veterinary Research Laboratory, specializing in large animal virology. In 1972, he was tasked with the responsibility of establishing and directing an equine diseases section at the laboratory. He spent 1973 visiting various institutions in the USA and Canada learning all he could about equine infectious diseases before returning to Ireland to fulfill the responsibility he had been assigned.

Timoney earned his PhD from the University of Dublin in 1974 and F.R.C.V.S. from the Royal College of Surgeons, London, in 1978, both in virology. In 1979, he accepted appointment as associate

professor in virology at Cornell University's College of Veterinary Medicine. Timoney returned to Ireland in 1981, assuming the position of scientific director of a planned Irish Equine Centre. Having helped establish the Centre, he returned to the U.S. in 1983 to join the faculty in UK's Gluck Center. He served as department chair from 1989 to 2008 and director of the Gluck Center from 1989 to 2006. He is currently professor and holder of the Frederick Van Lennep Chair in Equine Veterinary Science.

Timoney is an internationally acclaimed expert in equine infectious diseases. His work over the years has consisted of significant research achievements as well as frequent consulting work for governmental, university and private organizations like the USDA, Hong Kong Jockey Club, KTA, among many others.

Timoney is an O.I.E. designated expert on equine viral arteritis, holding two of the three O.I.E. designations in the U.S. Among his current research interests is identifying the markers of pathogenicity among strains of equine arteritis virus that can cause abortion and establishment of the carrier state in the stallion. He serves on numerous national and international equine industry and health-related committees and is a past president of the World Equine Veterinary Association. He has authored or co-authored more than 250 scientific publications.

Timoney is an honorary life member of the World Equine Veterinary Association and his awards include USDA Secretary of Agriculture Honor Award Recipient in 2001 and 2002; induction into the Gluck Equine Research Hall of Fame in 2009; Meritorious Service Award from the National institute for Animal Agriculture in 2012; 2017 AAEP Distinguished Educator Award, Academic; Albert Nelson Marquis Lifetime Achievement Award in 2018; USDA Honor Award recipient in 2001 and 2002; and James J. Hickey, Jr. Award from the American Horse Council in 2018.

*| Holly Wiemers, MA, APR, is the communications and managing director for UK Ag Equine Programs.* 

### AAEP PUBLISHES CONTAGIOUS EQUINE METRITIS GUIDELINES

Comprehensive guidelines to assist veterinarians with identification, diagnosis and control of contagious equine metritis (CEM), a nonsystemic venereal disease of equines that causes short-term infertility in mares and rare abortion, are now available on the American Association of Equine Practitioners' website. Six outbreaks of CEM have occurred in the United States in the past 15 years, including a significant outbreak in 2008-2010 in which more than 1,000 exposed horses in 48 states were required to be tested,

resulting in 23 contaminated stallions and five infected mares ultimately identified and treated. "Outbreaks in the U.S. have demonstrated the risk of incursions and the need for surveillance in the active breeding population to identify cases early and limit disease spread," said guidelines co-author Abby Sage, VMD, MS, Dipl. ACVIM, wo is Richmond staff veterinarian for the Virginia Department of Agriculture and Consumer Services. "Several of these outbreaks also demonstrated significant stallion-tostallion spread of Taylor equigenitalis via fomites and inadequate biosecurity during semen collection and stallion handling."

Sage and co-author Peter Timoney, MVB, MS, PhD, FRCVS, the Frederick Van Lennep Chair in Equine Veterinary Science at the University of Kentucky's Gluck Equine Research Center, advise equine practitioners and stallion owners/managers to follow stringent biosecurity protocols when collecting and handling stallions and consider implementation of annual testing of active breeding stallions prior to breeding season as ongoing assurance of disease freedom.

CEM is an internationally reportable disease. When the carrier status of a stallion or infection of a mare is suspected, practitioners should contact their state and/or federal animal health official, who will provide current collection and response procedures for suspect cases.

The CEM Guidelines were reviewed and approved by the AAEP's Infectious Disease Committee and board of directors. View the guidelines or save them to your mobile device for future reference <u>here</u>. Besides CEM, AAEP guidelines for 22 additional equine infectious diseases are available <u>here</u>.

# WARMER WEATHER MAY IMPACT EARLY FOALING MARE PASTURES

Horse farm managers with broodmares should carefully consider how recent weather conditions might affect tall fescue in pastures, potentially contributing to tall fescue toxicosis in early foaling mares.

According to Ray Smith, PhD, researcher and forage extension specialist in the University of Kentucky College of Agriculture, Food and Environment's Department of Plant and Soil Sciences, above-average temperatures and rainfall in the past several weeks have resulted in good pasture growth on horse farms across the region. While this is great news for many horse owners because it will prolong grazing and delay hay feeding, they should monitor the situation for early foaling broodmares.

"Typically, we don't worry about early foaling mares because the cold weather takes care of ergovaline concentrations. But the cold snaps we have had so far have been brief and quickly rebounded to above-average temperatures, keeping tall fescue green and growing into the winter months," Smith said.

Generally, ergovaline, the toxin produced by the endophyte commonly found in tall fescue, decreases rapidly once temperatures fall into the teens and grass growth is effectively stopped for the year. But because pasture grasses are growing deeper into winter than normal, this also means ergovaline production may continue. At the same time, other common pasture grasses like Kentucky bluegrass and orchardgrass are now dormant and therefore horses are less likely to graze them. Horses on pasture are likely consuming more tall fescue than they normally would in the spring and fall.

"Predicting when ergovaline concentrations will rise and fall is very difficult, so regular testing



PHOTO COURTESY DR. JIMMY HENNING.

is still the best method we have. Managers should consider testing the tall fescue in pastures where early foaling mares are currently grazing," said Krista Lea, MS, coordinator of the UK Horse Pasture Evaluation Program. "Pastures with less than 200 parts per billion ergovaline are likely safe for those mares."

According to Smith and Lea, broodmares are most affected by ergovaline in the last 60-90 days of pregnancy, so mares expected to foal before the first of March could be impacted by this unusual weather pattern and subsequent pasture growth. Pastures known to be higher in ergovaline in the spring and summer are more likely to be high now as well.

Mares negatively affected by ergovaline can have prolonged gestation, thickened placenta, red bag, poor milk production, dystocia and mare and foal mortality.

To reduce the risk to broodmares, horse owners and horse farm managers should feed hay and grain to reduce ergovaline concentration in the total diet or remove horses altogether from pastures containing tall fescue in the last 90 days of pregnancy.

Local county extension agents can help with pasture testing and submitting samples to the UK Veterinary Diagnostic Laboratory for ergovaline quantification. Pastures under 200 parts per billion are unlikely to cause significant issues in broodmares and will likely remain low until the spring green-up. Levels observed in early December are unlikely to affect other classes of horses or cattle. Sample handling is key, so be sure to read this publication on how to correctly sample for ergovaline.

For questions, contact the UK Horse Pasture Evaluation Program at <u>UKForageExtension@uky.edu</u>.

| Krista Lea, MS, is coordinator of the UK Horse Pasture Evaluation Program within UK's Department of Plant and Soil Sciences.

### DEMAND FOR WILD HORSES, BURROS STUDIED, AGE, COLOR AND HEIGHT PREFERENCES NOTED; TRAINING FOUND TO BE IMPORTANT

The number of wild horses and burros free roaming on western rangelands in the United States continues to greatly exceed the appropriate management level established by the Bureau of Land Management (BLM). In a 2019 statement, the acting head of the BLM indicated that private adoptions of wild horses and burros would be a key focus in regulating the population.

A simple tenet of economics is that markets are mechanisms to allocate resources, and of course a market consists a supply side and a demand side. Most of the focus on management of wild horse and burro herds has been on the supply side through research on population control through fertility suppression. Only a handful of studies have considered the demand side of the market.

Two recent and complementary studies conceived by Jill Stowe, PhD, professor of agricultural economics at the University of Kentucky, serve to fill that gap while assessing the feasibility of the BLM's recent focus. The first article, co-authored with Kathryn Bender, PhD, professor of environmental economics, Allegheny College Center for Business and Economics, and published in Sustainability (2019), investigates which characteristics of wild horses are most desired by adopters. The second article, co-authored with recent UK Equine Science and Management undergraduate student Hannah White, is currently under review for publication and explores characteristics of people who are most likely to adopt wild



PHOTO: ADOBE STOCK.

horses.

Bender and Stowe (2019) use data compiled from BLM online auctions held November 2012 through November 2014. The authors developed two models: one capable of predicting the likelihood of adoption, and the other estimating the adopters' willingness-to-pay for various horse characteristics. Results from this study suggest that a number of characteristics influenced the probability that a wild horse was adopted through an online auction. Older horses were less likely to be adopted, as were those that were born in captivity and had spent a longer time in captivity. Adopters seemed to have color preferences, with the less common coat patterns such as pinto, palomino, etc., increasing the likelihood of adoption relative to the more common base coat colors like bay and chestnut. Horses that had received some halter training as well as training under saddle were

more likely to be adopted. Interestingly, however, while a number of horse characteristics increased the likelihood of adoption, adopters were rarely willing to pay extra for those characteristics. Among horses at least 3 years of age, adopters are willing to pay almost 40% more for a pinto and about 20% more for a dilute as compared to a solid base coat color. Adopters were willing to pay at least 55% more for a wild horse that had received training under saddle but nearly 20% less for a horse that was born in captivity. Taken together, the results inform BLM herd management strategies in terms of the horses they select for adoption and the training provide to the horses.

Stowe and White (2021) begins with the initial assumption that current and previous horse owners in the U.S. represent the group most likely to be able to adopt a wild horse, and a survey was distributed through social media channels to this group. Out of nearly 2,250 usable responses, less than 10% had never adopted a wild horse and would never consider doing so in the future. The remaining respondents were asked to identify which characteristics were important to them in selecting a wild horse and answer questions regarding the most they would be willing to pay for a completely unhandled horse, one that had received halter training, and one that had received training under saddle. Using those responses, we then estimated adopter characteristics that serve as determinants of willingness to pay. Previous adopters were willing to pay more than those who had never adopted before, and willingness to pay was typically monotonically decreasing across age groups. Those who own five or fewer horses were also willing to pay more. None of the other adopter characteristics, such as age, gender, income or state of residence influenced willingness to pay. The average respondent in the sample was willing to pay about \$125 for his/her "ideal" untrained wild horse, just under \$300 for a horse that had received basic halter training and close to \$415 for a horse that had been started under saddle.

Results from these papers can be used to inform BLM's management strategies. Knowing that adopters have age, color and height preferences, BLM can select animals to be made available for adoption that are more likely to find homes. BLM can target younger horse owners with its marketing efforts. And both papers suggest that training, especially training under saddle, is a key component to private adoptions. We recognize that implementing a large-scale training program is not trivial. Training any horse, especially a wild horse, is expensive and risky, and many

respondents indicated that they didn't have the time or expertise to safely train a wild horse. And while both studies suggest adopters are willing to pay more for horses trained under saddle, it is noted that their willingness to pay falls short of actual market rates for training. Still, the BLM should carefully consider the tradeoff between the cost of training and keeping the horse for the duration of its life. Finally, continual efforts to educate horse owners about adopting a wild horse from the BLM will be important, as more than half of respondents reported little to no familiarity with the process.

| Jill Stowe, PhD, is a professor of agricultural economics at the University of Kentucky.

### UK AG EQUINE PROGRAMS 2022 CALENDARS AVAILABLE FOR PURCHASE

The UK Ag Equine Programs' 2022 calendar will be available from county extension agents in Kentucky around the beginning of the year. Developed by the UK Ag Equine Extension Agent Working Group, the 12-month planning calendar is full of timely tips and resources for horse owners and horse farm managers. There is no charge for the calendars, but offices have a limited supply that are distributed on a firstrequested, first-provided basis. Topics are presented the month before they are most applicable to give horse owners time to implement relevant practices.

Topics include, but are not limited to:

- feeding your horse
- body condition scoring
- weed control
- pasture seeding
- pasture rotation
- routine vaccination
- weaning foals
- testing hay
- soil testing
- winter blanketing
- hay feeders, forage
- water systems in winter
- mares and lights Extension information for

counties and associated agents can be found <u>here</u>.



Equine publications available online

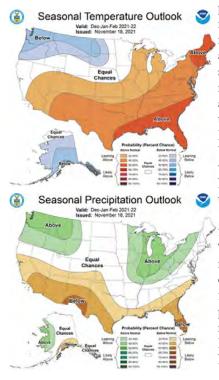


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### 2021 WINTER FORECAST AND CLIMATE TRENDS

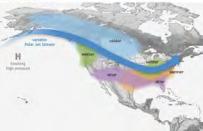
Dec. 1 marked the start of meteorological winter, and that brings about the number one question to meteorologists everywhere: What will winter be like this year?

Obviously, we can't provide a perfect forecast, but we can give an idea based on previous years and worldwide climate patterns. Below is a look at the latest winter outlooks from the Climate Prediction Center. These maps hint at higher confidence in above normal temperatures and precipitation over the next three months for much of Kentucky. This DOES NOT mean the entire winter will be warm and wet. We'll still have some bouts of cold air and dry periods, but when looking at the winter as a whole, forecasters hint that the wet and warm periods will outweigh those drier and cooler periods. A sliver of Southeastern Kentucky is even in the "equal chance" category, meaning that chances are equal for near, above, and below normal precipitation.



Darker shades on the maps above correlate to higher confidence. You can see that the shades across Kentucky aren't the darkest. This indicates the uncertainty in the forecast. The focus this year is on a "double-dip La Nina," meaning this is the second year in a row for La Nina conditions over the winter months.

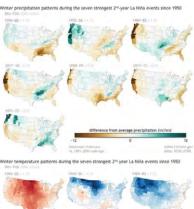
WINTER LA NIÑA PATTERN

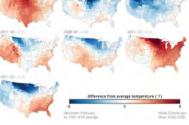


"La Nina" is associated with the El Nino-Southern Oscillation (ENSO) climate pattern. The Southern Oscillation can take one of three phases: neutral, El Nino or La Nina. El Nino and La Nina phases are known for causing disruptions to large-scale weather patterns, such as the jet stream, most significantly during the winter months. La Nina is the cool phase and is associated with cooler sea surface temperatures in the equatorial Pacific Ocean. Below is a look at the conditions we expect across the United States during a typical La Nina winter. Here in the Ohio Valley, we typically see warmer and wetter conditions during a La Nina. Notice that this map is quite similar to the outlooks.

The problem is that La Nina for winter 2021-22 is considered "weak." So, the map above will most likely have deviations, which complicates the winter forecast further. The map above is most probable during "strong" events. I recently read a <u>great article</u> from Mike Halpert, deputy director of the NOAA Climate Prediction Center, which discussed winter precipitation and temperature patterns associated with the second year of a double-dip La Nina.

I included a look at the maps developed by <u>climate.gov</u> below. Most, but not all, of the time, we see wetter than normal winters in the Bluegrass State with a double-dip La Nina. Warmer winters have also been more prevalent than cooler winters. One caveat he pointed out: We don't have a lot of data on these double-dip La Nina episodes, since they have only happened seven times since 1950.

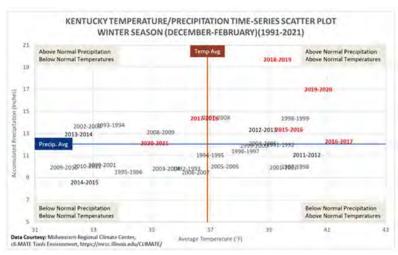




Our winters have been trending warmer and wetter over the past decade. This makes the warmer and wetter outlook a familiar scenario. Using data from the <u>Midwestern Regional Climate Center</u>, I've looked at the temperature and precipitation statistics over the past 10 winters. Since our exceptionally cold winter of 2014-15, five of our past six winters have seen near to above normal temperatures. The only exception came this past winter when a very cold and active February pushed us solidly below normal for the season. Overall, four of the top-10 warmest winters on record (data going back to 1895) have occurred over the past decade in Kentucky. 2016-17 sits at #2, 2019-20 at #5, 2011-12 at #6, and 2015-16 at #9. Looking at precipitation, Kentucky has now seen six straight winters of above normal precipitation. Some years have been much more significant than others. 2018-19 ranked as the 4th wettest winter on record, while 2019-20 was #12.

Last 10 Winter Seasons (December - February)						
Winter Season	Temperature			Precipitation		
	Temp	Norm	Dep	Prcp	Norm	Dep
2011-2012	40.3	36,9	3.4	11.08	12.04	-0.96
2012-2013	38.8	36.9	1.9	13.34	12.04	1.3
2013-2014	32.5	36.9	-4,4	12.94	12.04	0.9
2014-2015	32.7	36,9	-4.2	8.59	12.04	-3,45
2015-2016	39.7	36.9	2.8	13.37	12.04	1.53
2016-2017	41,4	36,9	4.5	12.29	12.04	0.25
2017-2018	36.8	36.9	-0.1	14.38	12.04	2.34
2018-2019	39.3	36.9	24	19.71	12.04	7.67
2019-2020	40.7	36.9	3.8	16.99	12.04	4.95
2020-2021	35.1	36.9	2.2	12.12	12.04	0.08

I combined these two aspects of temperature and precipitation for the past 30 years in the time-series scatter plot below. Each year is plotted based on the average winter temperature and accumulated precipitation for that respective year. The graph is then divided into four boxes based on the 1991-2020 Kentucky temperature (red line) and precipitation (blue line) normals for the winter season. Here's how to understand the chart. Upper right: Contains any years with above normal precipitation and temperatures. Upper left: above normal precipitation and below normal temperatures. Bottom left: both below normal precipitation and temperatures. Bottom right: below normal precipitation and above normal temperatures. Then I highlighted the last five years in red. Outside of this past winter, the previous five have all hovered within or very close to that upper right box of above normal precipitation and temperatures



The warmer and wetter winters have proven impactful to Kentucky agriculture in a variety of ways. Based on the outlooks, we could be in for similar problems in winter 2021-22. Kentucky is in a good spot compared to other states in the northern plains when it comes to soil moisture, but that could come at a cost with a wetter-than-normal winter on the way.

One impact could be an overwhelming amount of mud. Below is a picture from Josh Jackson, PhD, a UK extension livestock systems specialist and livestock producer in Mercer County. He took this in February of 2019, which was the second wettest February in Kentucky history when the state averaged 9.39 inches. This was one of many mud-filled scenes that were observed that year; mud has become more prevalent with warmer and wetter winters in place.



Also see the photo of horses in mud to the right by Steve Higgins, PhD. Heavy mud can create a stressful environment for animals, causing feed requirements to go up to maintain proper body condition. Luckily, hay production was high this year, with extended dry windows that were absent in recent years, especially 2020. Also, according to the latest <u>Kentucky</u> <u>Crop Progress and Condition</u> <u>Report on Nov. 29, livestock con-</u>

dition is running predominantly in the good to excellent category. Despite that, a warm and wet winter could cause livestock issues.

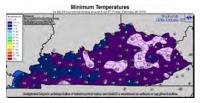


With the prevalence of wet conditions over recent years producers may want to consider mitigation strategies. Jackson installed all-weather surfaces on his farm, specifically in feeding areas that see a lot of foot traffic. More information on siting and materials suitable for your own operation can be found in the following extension publication, <u>AEN-115 –</u> <u>Appropriate All Weather Surfaces</u> for Livestock.

The potential for flooding also deserves monitoring. Kentucky, especially eastern portions of the state, got hit hard late last February and early March following intense rainfall across the region. Warm temperatures combined with wetter winter climates and dormant vegetation is a recipe for more runoff. Livestock producers and horse owners need to prepare for the potential for flooding during the winter season. In the <u>Aug. 24</u> <u>edition of the Ag Weather Update</u>, I discussed several steps a producer can take to better prepare themselves for the threat of flooding. Be sure to take a look since now is the time to prepare.

In the end, winter forecasting is definitely not an exact science. Despite outlooks hinting at above normal temperatures and precipitation across the Lower Ohio Valley, we'll still have our ups and downs through the year. Overall, it's good news. Combined with climate trends, the outlooks do hint we are NOT in for a VERY cold winter in the Bluegrass State. My parents always told me about the winter of 1978, but the winter of 2014-15 is my '78. February 2015 was the fourth coldest February on record. The coldest temperatures were seen on Feb. 20 when several across the state dipped between 10 and 20 degrees below zero (map below from NWS Jackson, Ky.). The Richmond, Kentucky, Mesonet station dipped to -32. That was only five degrees away from tying the all-time record low for Kentucky,

set in 1994 in Shelbyville. I don't know about you, but I'll definitely choose a warmer outlook over that kind of winter any day.



*| Matt Dixon, Meteorologist, UK College of Agriculture, Food and Environment.* 

# FRIDAYThe 11th AnnualJANUARYEQUIN28888888

Join us for 9 sessions with 4.5 hours of continuing education credit that focus on the University of Kentucky's equine research with relevance to young horses in training.

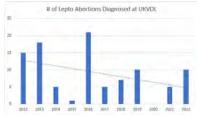
University of Kentucky Ag Equine Programs 8 a.m. - 3:15 p.m. 1140 Harry Sykes Way Lexington, KY 40504

EQUINE SCIENCE REVIEW | CA.UKY.EDU/EQUINE

### UKVDL CONFIRMED LEPTOSPIRAL ABORTION UPDATE

In a Dec. 22 bulletin, a timeframe past the mid-point of the 2021-2022 equine reproductive cycle, the University of Kentucky Veterinary Diagnostic Laboratory provided an update on confirmed leptospiral abortions submitted to the UKVDL by Kentucky horse farms.

As of Dec. 22, the UKVDL has confirmed 10 leptospiral abortions for the 2021-2022 foal crop. A 10-year plot of equine leptospiral abortions follows (a total of 97 aborted foals):

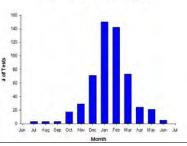


According to the bulletin, the first licensed vaccine against leptospirosis was released in the fall of 2015. Since that time, there has been a downward trend for the incidence of leptospirosis abortions based on UK VDL cases. To date, there have been no controlled studies to determine a statistical difference between farms that are vaccinating versus those not vaccinating.

For the 2019-2020 foal crop, the laboratory confirmed zero foal abortions. According to laboratory archives, this has not happened for at least 20 years in Kentucky.

The UKVDL conducted a 20year retrospective study on foal abortions diagnosed from 1993-2012 which identified 541 positive for leptospirosis (see the annual episodic curve by month below). A farm follow-up study conducted for foals aborted during the 2006-2007 foal crop determined that the average loss was \$189,000 per foal. Assuming that has not changed, the losses for the last 10 years would be \$18 million. Further studies are needed to reassess this data.

UKVDL Equine Leptospirosis by Month (1993 - 2012)



Those interested in following near-real-time data regarding leptospiral abortion and many other animal diseases identified in the laboratory, visit interactive mapping apps at the links below.

http://vdl.uky.edu/Epidemiology-Information.aspx – Home page, access to mapping and data for all species.

http://vdl.uky.edu:8080/informer/ DashboardViewer.html?locale=en\_ US&embedToen=f6d47393-13ac-4ea0-b9e4-3d9f6fa0feb5 – Equine leptospiral abortions by county this year and past years.

| Information provided by Jacqueline Smith, PhD, Epidemiologist, UK Veterinary Diagnostic Laboratory

### ALISA HERBST WINS CONFERENCE POSTER PRESENTATION AWARD

At the recent Conference of Research Workers in Animal Diseases (CRWAD), Alisa Herbst, PhD, a graduate student who recently successfully completed her doctorate in the laboratory of Amanda Adams, PhD, MARS Equestrian Fellow and associate professor at the University of Kentucky Gluck Equine Research Center, won first place in the best poster presentation competition. Her poster entitled, "Pro-inflammatory cytokine responses to bacteria antigen LPS differ between young adult and old horses in vitro," included some of the research she presented in her recently defended PhD dissertation. Congratulations to Herbst and team for winning this award.



### **GRADUATE STUDENT SPOTLIGHT: GLORIA GELLIN**

Gloria Gellin, who recently completed her PhD under Craig Carter, DVM, PhD, Dipl. ACVPM, Director of the University of Kentucky Veterinary Diagnostic Laboratory, had a unique journey. "My interests have always been in veterinary medicine and animal health. I started my undergraduate work at Purdue University in pre-veterinary medicine but decided to transfer to Morehead State University's vet tech program," Gellin said.

After earning her AAS in veterinary technology from Morehead State, she completed her BS in animal science at UK. She became fascinated with microbiology after taking a class on the subject at Morehead State. This interest led her to UK once again for a master's degree in microbiology. She then accepted a research position with the UK Department of Surgery.

Although she had considered pursuing a PhD, Gellin said she was not certain about this path until after meeting with Carter. Gellin began her MPH with a concentration in epidemiology under Carter's guidance. While completing this degree, she also began working with the U.S. Department of Agriculture conducting research that focused on the impact of fescue toxicosis on the microbial population in the gut in livestock and horses.

"When I started working with

the USDA, I was already enrolled in my MPH program. My experience working for the USDA and completion of the MPH inspired me to continue my education and finally begin a PhD," she said.

When asked about Carter's impact on her education and research, Gellin said, "Dr. Carter played a significant role in my education and research throughout both my MPH and PhD. His interest in leptospirosis and his immense knowledge in animal health was an inspiration for both my MPH and PhD. I couldn't have had a better mentor."

This high regard was not one sided. Serving as the chair of her PhD committee and as a collaborator on several research projects, Carter said, "She is an extremely hard worker, driven by a high scientific curiosity for new knowledge. When given a challenge or a difficult task, she stays on target until it is completed, consulting with her superiors as needed along the way to be sure she is staying on track."

The research Gellin accomplished while completing her degree is at the core of why she enjoys her career.

"When I began my master's in animal science, I found how much I loved doing research. You may (or may not) answer one question; however, this always opens the door to many more questions. It can sometimes be very frustrating, but research for me is very exciting



PHOTO COURTESY GLORIA GELLIN.

and rewarding, which inspired me to pursue my PhD."

Having recently completed her doctorate, Gellin said she is grateful for the people she has worked with along the way and that she remains passionate about her research. She plans continue to conduct impactful research in equine science and further the understanding of equine diseases.

/ Ryan Smith, a sophomore majoring in finance and marketing, is a communications and student relations intern with UK Ag Equine Programs.



### VISITING SCHOLAR SPOTLIGHT: HOSSAM EL-SHEIKH ALI

Hossam El-Sheikh Ali, BVc, DVM, MVSc, a visiting scholar in the laboratory of Barry Ball, DVM, PhD, Dipl. ACT, Albert G Clay Endowed Chair in Equine Reproduction at Gluck Equine Research Center, and a faculty member in Mansoura University, Egypt, continues to investigate equine placentitis with special focus on ascending and nocardioform placentitis.

This year, El-Sheikh Ali published one of his projects in the Veterinary Research Journal. In this study, he and his colleges identified the genes and pathways associated with nocardioform placentits. This study contributes to a better understanding of the disease pathophysiology.

El-Sheikh Ali and his colleges published the first review article about Nocardioform Placentitis in the 67th annual convention proceedings of American Association of Equine Practitoners 2021, the world's most comprehensive continuing education event devoted to equine practice. This review provides up-to-date information about the disease, which is intended to provide a comprehensive review on nocardioform placentitis for veterinarians and farm managers.

Pouya Dini, PhD, a faculty member at University of California, Davis, and a former scholar with the Gluck's reproduction team, presented this review in the 67th annual convention of AAEP 2021.

Since there is no sensitive and specific biomarker available to diagnose and predict nocardioform placentitis, El-Sheikh Ali is investigating the equine serum proteomics during nocardioform placentitis compared to normal mares to identify specific serum biomarkers for nocardioform placentitis with subsequent development or validation of an ELISA or on-farm screening test to measure this biomarker(s) with subsequent improvement of



our diagnostic tools.

The full paper "Veterinary Research" can be accessed <u>here</u>.

The full Review "AAEP 2021" can be accessed <u>here</u>.

The Virtual Workshop on Nocardioform Placentitis can be found <u>here</u>.

# THE RECOVERY OF JOINT HEALTH – WHAT IS BEHIND IT?

The results of a team effort between researchers from the University of Kentucky Gluck Equine Research Center and the Virginia Maryland College of Veterinary Medicine were recently published in the prestigious journal Frontiers in Immunology. The study uncovers mechanisms that drive the resolution of the inflammatory process within equine joints. The full publication can be found here.

This effort was led by Bruno Menarim, DVM, PhD, a former equine surgeon in Brazil and Chile and now a postdoctoral scholar since 2020 within the Musculoskeletal Laboratory of James MacLeod, VMD, PhD, John S. and Elizabeth A. Knight chair and professor of veterinary science at the Gluck Center. Together with other six researchers from the Gluck Center (Hossam El-Sheikh Ali, Shavahn Loux, Kirsten Scoggin, Ted Kalbfleisch, James MacLeod and Linda Dahlgren), this multidisciplinary study revealed molecular drivers of how immune cells called macrophages can drive the recovery of joint health following a severe inflammatory process. Among the key findings:

- Immune mediators produced during the acute phase of inflammation are essential to set the stage for a response that efficiently fight aggressors, counteract damage and recover joint health.
- Pro-inflammatory mediators induce increased production of lipid mediators that counteract oxygen free radicals and resolve joint inflammation.

This study was sponsored by the Grayson Jockey Club, the Gluck Equine Research Center and the College of Veterinary Medicine at Virginia Tech.



THE SIXTH TEX CAUTHEN FARRIER / VETERINARIAN / RESEARCHER SEMINAR

SUNDAY, JANUARY 23<sup>rd</sup>, 2022

### THE SIXTH TEX CAUTHEN FARRIER / VETERINARIAN / RESEARCHER SEMINAR

"PROTECTING THE HORSE, THE HOOF, AND THE BIOMECHANICS OF THE HIND LIMB" 9 a.m.-5 p.m.,

LIVE in the GLUCK Auditorium (Covid permitting) and via ZOOM: https://gluck.ca.uky.edu/2022-cauthen.ZOOM



https://gluck.ca.uky.edu/2022-cauthen.ZOOM

EQUINE SCIENCE REVIEW | CA.UKY.EDU/EQUINE

### KENTUCKY'S AGRICULTURAL ECONOMY THRIVING; RECORD RECEIPTS EXPECTED

University of Kentucky agricultural economists are predicting the state's 2021 agricultural receipts will exceed \$6.7 billion. If realized, this will be a new record, surpassing the previous record of \$6.5 billion in 2014 and the \$5.5 billion average over the past five years. They expect net farm income to approach \$2.5 billion, which is the highest since 2013.

Economists in the UK College of Agriculture, Food and Environment shared their predictions for the Kentucky agriculture and forest economies during the annual Kentucky Farm Bureau meeting. Kentucky's agriculture sectors powered through many challenges caused by the COVID-19 pandemic and are in the midst of tremendous economic growth due to increases in grain exports, strong crop yields and a high global demand for meats. As a result, corn and soybeans are tied with poultry as the state's top agricultural commodities in 2021. Each comprises 18% of all projected sales. Corn, soybeans and poultry are followed by equine, which had a strong sales season and has a 16% market share. Cattle is next with 11% of projected sales.

"In 2021, the equine market made a huge recovery, and Keeneland sales were up 35% from 2020," said Kenny Burdine, PhD, UK agricultural economist.

Kentucky's agricultural economy is consistent with national trends. U.S. farm exports will likely finish 2021 at record levels that approach \$175 billion. The U.S. Department of Agriculture is predicting a 23% increase in net farm income, which will only be surpassed by the all-time record high of \$123.7 billion set in



PHOTO COURTESY UK COLLEGE OF AGRICULTURE, FOOD AND ENVIRONMENT.

2013. In 2020, producers' incomes increased by nearly 20%, mostly due to government payments from the Coronavirus Food Assistance Program designed to help farmers work through the challenges of the pandemic and the Market Facilitation Program payments to help export losses evolving from the trade war. While government payments are projected to be 40% lower in 2021, they continue to make up about one-fourth of U.S. net farm income.

"Despite the impactful events of the pandemic, the U.S. farm economy has not only survived, but has experienced remarkable growth, initially on the heels of government financial support, followed by significant export gains, impressive crop yields and a growing global demand for meat products," said Will Snell, PhD, UK agricultural economist.

Going into 2022, the economists predict commodity prices will continue to be relatively high but increasing input costs will tighten farmers' profits in the next year. "Farm input costs will likely be up double-digit percentages in 2022, with much higher fuel, fertilizer and feed prices," Snell said. "Labor costs and supplies continue to be a concern, not only among farmers but throughout the entire food supply chain and the rest of economy. Farmers will be advised to monitor input and commodity markets closely in developing purchasing and marketing strategies amidst this turbulent, volatile, and uncertain farm economy."

| Source: Edited Dec. 2 news release. Katie Pratt is an agricultural communications specialist with UK's College of Agriculture, Food and Environment. Subscribe

**Past Issues** 



The Graduate Gallop - February 2022

### **Welcome to The Graduate Gallop**

UK Ag Equine Programs is excited to provide this publication for alumni as a means to connect and offer news and resources to our graduates. We hope you enjoy!



### Join us for Bits and Bites on Feb. 17!

The Equine Alumni Affiliate Network (EQAAN) is excited to announce the launch of Bits & Bites, a bimonthly informal gathering for UK Equine alumni, friends and family. This social event is a great way to connect with alumni, equine industry professionals and the EQAAN Board of Directors. All gatherings will

**Past Issues** 



### **UK Ag Equine Programs Photography Contest**

UK Ag Equine Programs has opened its second annual photography contest this month. This contest is open to current students and the general public, including alumni! There are three age divisions for submissions: youth (17 and under), UK students and open (18 and over). Submissions will be accepted through Feb. 28. We are looking for original photographs that capture horses in any discipline as well as photos that include horses interacting with people or in a farm landscape setting. You can find out more information <u>here</u>. We look forward to seeing your awesome photos!

Past Issues



Click here to enter your photo

### Alumni, we would like to hear from you! Why did you choose UK's Equine Science and

### Management program?

UK Ag Equine Programs wants to learn what influenced Equine Science and Management students and alumni to make their college decision. We created this survey in hopes of learning about what parameters influence prospective equine students and played a part in helping you make a final college decision. Please take a moment to complete the survey <u>here</u>. We are excited to learn more about how you chose this program.

### Equine Science and Management Students & Alumni



How did you learn about UK's equine program?



Please take this brief survey!

### Past Issues

EQAAN and UK Ag Equine Programs will be partnering again this year to host the annual Equine Alumni Land Rover Three Day Event tailgate on Saturday, April 30. More information will be sent out soon, but for now, please mark your calendars to join us. In 2018 and 2019, we won the best tailgate and we aim to keep the winning streak going for 2022.



Check out our recent publications for more news! Equine Science Review-November/December 2021 Wildcat Canter - January 2022



### Announcements:

- We are excited about the new Bits & Bites bi-monthly networking event to be hosted by EQAAN starting Feb. 17. See the top section for more details.
- The EQAAN Board of Directors next meeting will be on March 21, 2022. Please feel free to reach out to our secretary, Camille Camp, if you have any topics that you would like the board to discuss at our upcoming meeting.
- We are excited to welcome our three new board members

- Past Issues
  - Mackenzie Johnson ('21)

Contact Camille Camp (<u>camillebcamp@icloud.com</u>) for inquiries or suggestions for EQAAN as we get back to more in-person gatherings for 2022.

Follow EQAAN on <u>Facebook</u> to stay connected! To learn more about EQAAN, the Board of Directors, upcoming events and initiatives, please click <u>here</u>.



Looking to find a new position, meet new people or volunteer your time? Well, look no further. We have some information for you!



### **UK Equine Alumni Job Board**

- Appaloosa Horse Club director of marketing and public relations
- Centenary University equestrian center barn manager
- Centenary University veterinary
   assistant
- Colton Woods Horsemanship accountant

### **Helpful Links**

- <u>Kentucky Horse Council</u>
- <u>UK Alumni Association</u>
- <u>UK Stuckert Career Center</u>
- <u>Central Kentucky Job Club</u>
- Handshake
- <u>CareerShift</u>
- <u>Vault</u>

Subscribe	Past Issues		Translate <b>•</b>
•	Filament - equine so	cial media specialist	
Green Acres Foundation - equine			

educator

- Justin's Place volunteer and office
   manager
- The Foundation for the Horse -

communications coordinator

• Look at more postings HERE

Got an internship to share with our students? Click HERE.

Got an equine career opportunity to share? Click HERE.



**Tips for Effective Communication** 

Past Issues



By Holly Wiemers, MA, APR, communications and managing director, UK Ag Equine Programs

I recently learned that I'm not supposed to send texts that use punctuation and capitalization. It's passive aggressive, bordering on just plain aggressive. At least that's what my high school aged daughter informed me.

What?!?! Who decided that? The declaration goes against the core of some of my most deeply held professional values. But it did make me think about communicating. And communicating effectively. And what that even means.

There's a famous quote that states that the single biggest problem in communication is the illusion that it has taken place.

That's a pretty accurate assessment of the problem we face in the world we live in, the world that has all of us so busy in our day-to-day lives and thoughts and viewpoints and so overwhelmed by clutter and messages and things competing for our time and attention that it's really hard for anything to hit the mark. Those of us who communicate with an end goal in mind (hint, that's all of us) should stop and think about that.

Basic communication theory (hang with me here) holds that in communication, there is a sender and a receiver. That seems simple enough. And that for communication to occur, the receiver must get the message the sender sent. Ok. Duh. That seems pretty basic.

You would think so, but the getting the message part often doesn't happen, much less the rest of the important process for successful communication.

It gets murkier to consider that not only should the receiver get the message, but they also need to

Past Issues

For anyone who has sent a text or email to someone where the words seemed perfectly clear, only to have that message *not* get received in the way you intended it, you understand how this gets very murky very quickly.

For effective communication to occur, not only does the person getting the message need to actually receive it, but they also need to understand it as you meant it to be understood. If that has happened, we can happily put a checkmark next to this task and move on. Message sent and received as intended. Celebrations all around.

Oh wait. We want someone to not only get and understand what we said, but we also actually want them to act upon that understanding? We want our message to have an effect (hopefully a positive one). We want them to hire us or buy our product or use our service or come to our shindig. Well, now, that's a whole new level of complexity. And that goes to the core of effective communication.

It's hard. We are all unique, with our own life experiences and viewpoints and backgrounds and frames of reference. If we've learned nothing from the past few years of national discord, we've at least learned that not everyone thinks like us and there are a LOT of different viewpoints out there, many we don't agree with.

We make the mistake of thinking everyone views the world like we do. We have a bias of thinking our messaging and our words are inherently understood as they were meant to be by an audience that's just like us. Ha!

So how do we try to make sure that we communicate our message as it was intended and get someone to act upon it?

Well, first we need to think about who that someone is. Who are we communicating with, and why? What are they like? How do they prefer to receive messages? It doesn't help us to communicate with someone we are trying to reach via a medium they don't like or don't use. And it's really ineffective to try to communicate with a group of people we aren't actually trying to reach.

Successful communication also starts with the end goal in mind. Besides understanding who we are talking to, we need to really think about what effect we are aiming for. Are we looking to get hired in that dream job? Score that important sale to a client? Persuade that customer that they really, really want our product or service? Convince somebody that your fundraising endeavor is worthy of their hard-earned money?

How we frame our messages really does depend on what we want to accomplish and with who. The better aligned we can be, the more likely it is that we'll accomplish what we set out to do in the first place.

Past Issues

forever via the social media channels, text messages, screen shots and the long memories we each keep about the relationship and connection we have with others. When we screw up, it's a very public thing and something that can be hard to correct. So it's really to our benefit to think about what we are trying to do before we launch into doing it.

Hence, if my end audience is a high school girl and I'm trying to cajole her to do something, maybe I leave off the punctuation and the capitalizing of words. I'm not sure I can manage to do that. But I also know she may not hear my message in the way I mean it to be heard if I don't at least think about it.



### **Upcoming Events**

- Feb. 17 Equine Alumni Affiliate Network (EQAAN) Bits and Bites at Mirror Twin Brewing
- Feb. 21 UK Pastures Please!!, Fayette County Extension Office
- March 21 Equine Alumni Affiliate Network Board Meeting
- April 26 UK Equine Science and Management Internship Showcase Reception
- April 30 Equine Programs Alumni Tailgate, Land Rover Three Day Event at Kentucky Horse Park

To review these and more upcoming events, go to the UK Ag Equine Programs' website here.

Past Issues



**Rachel Reed ('21)** recently joined Hagyard Equine Pharmacy as a pharmacy associate. In this role, Reed assists clients with orders over the phone and in-person. She has gotten the opportunity to learn about all of the medications and supplements that the pharmacy offers and has really enjoyed getting to know many of the different veterinarians, horse owners/trainers and barn managers in the area.



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www.ca.uky.edu/equine

Contact: 859-257-2226 equine@uky.edu

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Graduate Gallop Editorial Committee

Co-Editors - Erin DesNoyers (operations coordinator) and Kristen Wilson (academic coordinator)

Graphic Design and Content - Camille Camp (EQAAN board member) and Sabrina Jacobs (equine alum)

Editorial Board - Camille Camp (EQAAN secretary and communications committee co-chair); Danielle Jostes (equine philanthropy director); Dr. James MacLeod (equine programs director); Lindsay O'Hara (EQAAN communications committee co-chair); Savannah Robin (internship coordinator) and Holly Wiemers (equine programs communications director).



Welcome to the Tuesday Tidbits!

Check out events, updates and opportunities for UK Equine Students!



A treat for our students this week in celebration of Valentine's Day! Be on the look out for Valentine's Day treat bag deliveries this week from our Wildcat Wrangler student ambassador team. We hope you enjoy!



### K College of Agriculture.

Expoy taking pictures and want to win some FREE UK equine swag? If yes, then plan on entering our UK Ag Equine Programs pholography contest. More information can be found there.

UNIVERSITY OF KENTUCKY



Do you plan to graduate in May or August?

If the enswer is yes, don't forget to apply for graduation by April 1. Directions can be found here, it's also important to remember that this process is different than registering to walk in the Commencement ceremony.

### Why'd you choose UK's Equine Science and Management program? UK Ap Equine Program wants to learn what influenced Equine Science and Management students to make their college decision. We created this survey in hopes of learning about what parameters influence prospective equine totalents and played a part in heighing your make a fanti college decisions. Plexate tailan a moment to complete the survey <u>laws</u>. We are excited to learn more about how you chose this program.

Equine Science and Management Students & Alumni

How did you learn about UK's equine



Check out the new student wellness room in Ag North! This new space opened on Monday, Feb. 14 for all students to use. Be on the lookout for additional wellness programs being offered later this semester.





How did you learn about UK's equine program?



Ag Equine Programs Student Hub: Click Here!





169 internships posted

There are so many GREAT opportunities!

### **INTERNSHIPS**

### 12

### 169 Internships posted Featured Fall Internships

- Winstar Farm office internship
- Grand Slam Social social media and marketing internship
- Cobra Farm farm and breeding
- management internship
- American Horse Council virtual
- Internships • Kentucky Equine Education Project
- Foundation Internship
- The Jockey Club summer internship application now open
- Breeders' Cup customer service
- Internship application closes this week • AQHA Ranching Heritage Breeder -
- internship • Kentucky Equine Research - internship
- Whitestone Farm internship
- Rimroc Farm Thoroughbred farm
- management • UK Veterinary Science - research
- internship position

   Pony Club event planning internship

Pony Club - event panning merns

Check out the other internships!

### There are so many GREAT opportunities!

Now is the time to begin thinking about your summer plans. Are you planning to work, take an internship, try something new? There are a lot of opportunities you can take part in but now is the time to begin planning.

If you haven't already, be sure to check out the Equine Studen! Hub to explore options. If you, would like to schedule a career advising meeting be sure to check Mrs. <u>Sevannuh Robin's</u>





Also, don't miss like list of career and internship fair opportunities listed in the upcoming dates below.

IODC & ODDODTUNUTIES

Click here to explore equine jobs and opportunities

### WILDCAT

### Food and Resource Drive benefiting Blue Grass Farms Charities

It's time to Spring into Service! The Wildoxt Wranglers are hosting a food and resource drive that will benefit Blue Grass Farms Chartles, an organization that supports Thoroughbred farm employees in Central Kentucky, Donations are being collected in boxes located in the haltway outside of the Ag Equine Programs' office (Ag North N-212), Items needed include: canned food, non-perishable food Berns, small toletines (shampoo, soap, etc.), paper towels, Issues and cleaning supplies. We are also collecting spring toy ferms fire kids such are builders, sitely charts, small garden starter kits, kiles, coloring books, crayons/markers and much more!



### **JOBS & OPPORTUNITIES**

- U.S. Pony Club marketing and communications director, full-time position
- Katerich Farms broodmare and yearling divisions
   Rimroc Thoroughbred farm assistance needed
- Kentucky Equine Research part-time farm help
- Cobra Farm part-time Thoroughbred farm help
- Hanover Shoe Farm Pennsylvania breeding farm internship
- Rea Quarter Horses assistant trainer
- NYRA legal assistant paralegal
- NYRA administrative assistant
- Blue Ribbon Horse Farm housing provided
- UK Maine Chance Farm student worker
   Connerstone Farm

### Want to attend a professional organizational meeting? Check out these two great opportunities: Kentucky Thotpughtera Farm Managers Caub Box Coast Farm Lunch & Learn.

### Want to learn about exciting internships and job opportunities for the summer?

The Celeguate Protessional Horseman Association invites you to attend their meeting on Thursday, Feb. 17 at 5 p m in II52 Garrigus. They will host Harper Carbone from Spy Coast Farm to learn about job and internship opportunities with the farm and rehate center. See the graphic below for more information



DEADLINES & DATES

### Academic

- March 14 Midterm
- March 14-19 Spring break
- March 28 Last day to drop a class
- April 27 Last day of classes
- April 28-29 Reading days (classes do not meet)
   May 2-5 Finals week

### Student Events

- . Feb. 14 -25 Spring into Service Food Drive with Blue Grass Farms Charities
- Feb. 16 UK STEM Career Fair 1-4 p.m.
- . Feb. 16 UK Business Internship and Career Fair -all day
- Feb. 23 Ag Career Fair West 11 a.m. -3 p.m.
- Feb. 24 UK Virtual Internship and Career Fair 2-6 p.m. Handshake
- March 3 Equine Mid-term Study Break
- March 9 Ag Career Fair Midwest 11 a.m. -3 p.m.
- April 3 UK Horsey Hustle 5K, Coldstream Park 2 p.m. race time
- April 26 ESMA Internship Showcase, E.S. Good Barn
- May 5 Equine Science and Management Graduation Open House
- May 6 Commencement for College of Agriculture, Food and Environment

### **SCHOLARSHIPS**



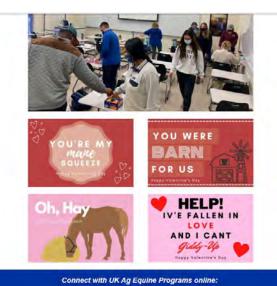
### SCHOLARSHIPS

CAFE Current Student Scholarship - Due March 21 UK Librarier: Dearts Award Scholarship Opportunity - Due April 4 KEEP: Scholarship - Due May 1



Thank you to our Wildcat Wranger equine student ambassador team for, assembling and distributing the Valentine's Day treat bags this week. A special shoutout to Emily Eikins for creating the cute Valentine's Day cards.





Þ







Ag Equine Programs College of Agriculture, Food and Environment



### SEPT EQUINE CAREER and 29 OPPORTUNITY FAIR

E ADERS Q

**OPEN TO ALL MAJORS** 

Graduates and their families are invited to join us for the Equine Science and Management Graduation Open House

Dec. 17, 2021 3:00-4:30 PM University of Kentucky

Ag Equine Programs College of Agriculture, Food and Environment UK Maine Chance Equine Campus Pirri Teaching Pavillion 3:00-4:30 PM Please RSVP to (859) 257-2226 or

equine@uky.edu by Dec. 10

Light refreshments will be served

### Map of Farm



### **Directions From Gate**

1. Continue down Research Farm Road until the road ends, then turn right onto Equine Campus Road.

2. Follow Equine Campus Road until a pavilion appears on the right with a parking lot in front of it. A barn will also be to the left of the pavilion.

3. Please park in gravel parking lot and enter through the front entrance.

# University of Kentucky

### Ag Equine Programs College of Agriculture, Food and Environment

## join us for friends, food and fun!







# 



## AUG. 26 E.S. Good Barn

1451 University Dr.





### **University of Kentucky**

Ag Equine Programs College of Agriculture, Food and Environment

# MEET WITH OUR EQUINE CLUBS AND TEAMS TO LEARN MORE

# SEPT. 2 AT 4 P.M.

# AND GET INVOLVED!

## LOCATION CHANGE: GARRIGUS ALUMNI PLAZA



### HIGHLIGHING THE EXPERIENCES OF THE 2021 SPRING, SUMMER & FALL EQUINE SCIENCE AND MANAGEMENT INTERNS

### TUESDAY, DECEMBER 7, 2021

5:30-7:00 P.M. E.S. GOOD BARN



Ag Equine Programs College of Agriculture, Food and Environment Contact: Kristen Wilson, kristen.wilson1@uky.edu

### UK Ag Equine Programs students gave back to equine community during second annual Equine Week of Service

By Holly Wiemers

LEXINGTON, Ky., (Nov. 2, 2021) – The University of Kentucky College of Agriculture, Food and Environment's Equine Programs held its second annual Equine Week of Service Oct. 4-9.

Students in the equine leadership program called Wildcat Wranglers created and implemented the Week of Service to give students a chance to give back to the equine industry, an especially important need during the isolation of the pandemic. The Wranglers coordinated volunteers and promoted the service event via social media.

"We had an amazing turnout during the week, with more than 250 shifts being filled and just over 500 hours of time given," said Nick D'Amore, a senior equine major and Wildcat Wrangler who headed up the group's volunteer and outreach committee. "We couldn't be happier, given the success of the event last year, to be able to follow that up and be just as well received this year. It was very rewarding for everyone involved."

The Week of Service helped seven Lexington-area equine organizations, including the African Cemetery No. 2, Kentucky Riding for Hope, Kentucky Equine Adoption Center, Kentucky Horse Park and Mounted Police, Old Friends and Our Mims Retirement Haven.

"My favorite part about the UK Equine Week of Service is seeing how the community comes together. Students, alumni, faculty and staff, and anyone else who participates, has an opportunity to work alongside each other to help create a lasting impact on the organizations," said Margaret Babiarz, an equine senior and head of the marketing and communications group for the week. "Planning the UK Equine Week of Service allowed me to build upon invaluable skills like networking, leadership and communication."

According to Kristen Wilson, academic coordinator in UK Ag Equine Programs and advisor of the Wildcat Wranglers, the event was successful and hopefully helped equine organizations in their day-to-day functions.

"The UK Equine Week of Service is a great opportunity for our students, faculty, staff and alumni to come together to give back to the local equine industry, and to get away from the classroom and network."

James MacLeod, director of UK Ag Equine Programs, echoed her sentiments, adding that he is glad it has become an annual tradition.

### College of Agriculture, Food and Environment

### News

"We can all be proud of everything the students have accomplished. The broad participation and enthusiasm are wonderful, with both the host organizations and the volunteers living the commitment to be the change you wish to see in the world," MacLeod said.

"The leadership role that the Wildcat Wrangler equine ambassador team takes on to plan, coordinate and implement this event is impressive, teaching them many skills that will help them into their future career goals," Wilson said.

This event was also supported by local industry organizations, including Central Equipment for their sponsorship of the bulb planting project at African Cemetery No. 2. Through their generosity, the project was able to plant different flowering bulbs highlighting and memorializing the equine industry horsemen buried there. Each type of bulb planted will correspond to the various equine occupations represented in the cemetery.

To see recaps from the week, visit UK Ag Equine Programs' Instagram or Facebook pages or learn more at <u>https://equine.ca.uky.edu/.</u>

-30-

Writer: Holly Wiemers, holly.wiemers@uky.edu

UK College of Agriculture, Food and Environment, through its land-grant mission, reaches across the commonwealth with teaching, research and extension to enhance the lives of Kentuckians.

### EQUINE WEEK OF SERVICE Oct. 4-10



African Cemetery No.2 Central Kentucky Riding for Hope KHP Mounted Police KY Equine Adoption Center KY Horse Park Our Mims Retirement Haven Old Friends Farm



Ag Equine Programs College of Agriculture, Food and Environment

### JOIN US FOR



Equine Generates

### **SEPT 27-OCT 3**

### **SCAN HERE**

To sign up or click below to visit our website for more information!

**Equine Service Week** 



### PARTICIPATING LOCATIONS

**Kentucky Horse Park** 

**New Vocations** 

The Secretariat Center

**Our Mims Retirement Haven** 

**Kentucky Equine Adoption Center** 

**Central Kentucky Riding for Hope** 

**Blue Grass Farms Charities** 



Ag Equine Programs College of Agriculture, Food and Environment



**University of Kentucky** College of Agriculture, Food and Environment **Cooperative Extension Service** 

## UK Extension Equine Summit

The focus of this summit is to provide Agriculture & Natural Resources Agents and 4-H Youth Development Agents the educational resources needed to conduct or improve upon the adult and youth equine programs in your county.

### December 18, 2018

Mercer County Extension Office 1007 Lexington Road Harrodsburg, KY 40330

### December 19, 2018

Daviess County Extension Office 4800 New Hartford Road #A Owensboro, KY 42303

**Cooperative Extension Service** Agriculture and Natural Resources Family and Consumer Sciences 4-H Youth Development **Community and Economic Development** 

Educational programs of Kentucky Educational programs or removity voltation file basis of race or social status and will not discriminate on the basis of race religion, political belief, sex, sexual orientation, dender identifior social status and will not discriminate on the basis of race, other ethnic origin, national origin, creed, religion, political belief, sex, sexual orientation, gender identity, gender expression, pregnancy, marital status, genetic information, age, veteran status, or physical or mental disability. University of Kentucky, Kentucky State University, U.S. Department of Agriculture, and Kentucky Counties, Cooperating. LEXINGTON, KY 40546

### Registration information to be announced.

### Tentative Agenda on back...



Disabilities accommodated ith prior notification.



### December 18, 2018

Mercer County Extension Office 1007 Lexington Rd. Harrodsburg, KY 40330

### December 19, 2018

Daviess County Extension Office 4800 New Hartford Rd. #A, Owensboro, KY 42303

Tentative Agenda:

- 8:00 Coffee, donuts and registration
- 8:30 Welcome and Introductions
- 8:50 Are Horse Owners an Underserved Audience in Your Community?
- 9:00 UK Equine Update
- 10:00 Break and Networking
- 10:30 Developing Equine Programs in Your County (Agent perspective)
  - Getting Started
  - Equine Program Success Stories: ANR and 4-H Agents
  - How to connect with horse clients?
- 12:00 Networking Luncheon

1:00-2:30 – Round Table Discussions, Suggested discussion questions:

- What are the challenges of starting a horse program in your county?
- What are the opportunities of starting a horse program in your county?
- How do you/could you communicate with horse owners in your county?
- What kinds of equine programs might work best in your county?
- What resources/help do you need to start or improve upon existing equine programs in your county?

2:30 - Break and networking

- 3:00 Reports from Round Table Discussions
- 4:00-5:00 Developing an Action Plan to address Agent needs related to Equine programming.

### ENTER THE 2ND ANNUAL

### UNIVERSITY OF KENTUCKY

### AG EQUINE PROGRAMS

2022

### **PHOTO CONTEST**

FOLLOW FOR UPDATES

### WANT TO BE FEATURED IN THE WILDCAT CANTER? A CHANCE TO WIN SOME UK EQUINE SWAG?

### **ENTER** THE 2<sup>ND</sup> **ANNUAL**

### UNIVERSITY OF KENTUCKY

AG EQUINE PROGRAMS

2022

**PHOTO CONTEST** 

DEADLINE TO SUBMIT IS FEB. 28



PHOTO BY SOPHIA SCHINDLER



APRIL 3, 2022 . COLDSTREAM PARK

Contact: Jill Stowe, jill.stowe@uky.edu

### UK and the Kentucky Horse Council Launch 2022 Kentucky Equine Survey

By Holly Wiemers

LEXINGTON, Ky., (Aug. 23, 2021) – The University of Kentucky College of Agriculture, Food and Environment and the Kentucky Horse Council (KHC), in conjunction with the Kentucky Thoroughbred Association and other industry partners, will conduct a statewide equine survey in 2022.

The Aug. 20 announcement by the Kentucky Agricultural Development Board provided a key piece of needed funding to help make the survey's execution possible. The survey has also received support from the UK Gluck Equine Research Center and the Kentucky Farm Bureau. Additional industry support is needed for the work, which will be coordinated by Jill Stowe, a professor within UK's Department of Agricultural Economics and equine industry economist, and implemented by the U.S. Department of Agriculture National Agricultural Statistics Service.

It's been a decade since UK Ag Equine Programs and KHC successfully partnered on a statewide equine survey, a critically needed study that helped provide a more accurate assessment of the number of horses (242,400) in Kentucky and their economic impact (\$3 billion), two fundamental pieces of information that had been unavailable to those who needed it. Prior to the 2012 study, the last time a comprehensive look had been taken at Kentucky's equine industry was in 1977, and an industry-wide economic impact study had never been conducted.

Fast forward 10 years from the 2012 Kentucky Equine Survey, and a lot has changed in the state and within its signature industry. A follow-up study is needed to provide an accurate snapshot of the state's equine industry and to identify changes that are happening over time.

"Data obtained from this study are important for the sustained strength and continued growth of Kentucky's equine industry," Stowe said. "Decision-makers such as entrepreneurs and business owners, equine health providers and policy makers can utilize this data to make sound, well-informed decisions on important issues facing the industry."

"Sincerest thanks go out to the KHC, KADB, KTA/KTOB, Kentucky Farm Bureau and others for their support," said Nancy Cox, vice president for land-grant engagement and dean of the College of Agriculture, Food and Environment. "Without this support, there can be no accurate count of the animals that underpin a huge part of Kentucky's agricultural economy."

### News

In addition to providing information about the number of horses in each county in Kentucky, their uses and the economic activity they generate, the study will also help provide critical data for disease surveillance, inform workforce development efforts and help identify emerging markets on which businesses can capitalize.

"As the KHC is a non-breed, non-discipline specific organization focused on the protection and development of the Kentucky equine community, the information gleaned from this survey will be invaluable," said Sarah Coleman, KHC executive director. "We're excited to learn more about the horses residing in the commonwealth and how we can better assist them and their owners."

"Accurate and current data is the essential foundation that enables informed decisions and policies," said James MacLeod, professor of veterinary science and director of UK Ag Equine Programs. "Accurate medical surveillance, agricultural policies, economic planning and governmental programs will all be empowered by this very important study."

Click <u>here</u> to participate in the 2022 Kentucky Equine Survey. Questions can be directed to <u>equine@uky.edu</u>. Information about the 2012 Kentucky Equine Survey can be found at <u>https://equine.ca.uky.edu/kyequinesurvey</u>. The 2022 Kentucky Equine Survey is supported by the Kentucky Department of Agriculture, the Office of the Kentucky State Veterinarian and Rep. Matt Koch. Interested in financially supporting this effort? Email Danielle Jostes, equine philanthropy director, at <u>danielle.jostes@uky.edu</u> or call 859-218-1176.

-30-

Writer: Holly Wiemers, <u>holly.wiemers@uky.edu</u>

UK College of Agriculture, Food and Environment through its land-grant mission, reaches across the commonwealth with teaching, research and extension to enhance the lives of Kentuckians.

### **UK AG EQUINE PROGRAMS**

### EQUIPPING Tomorrow's Workforce

UK Ag Equine Programs combines a comprehensive, interdisciplinary education with world-class research and unmatched service to the equine industry - *all in one place*.

> +3,700 ENROLLMENT IN EQUINE-RELATED COURSES ACROSS ALL UK MAJORS over the past five years



UK EQUINE BACHELOR'S PROGRAM and many stay in Kentucky



SNAPSHOT OF AVERAGE ANNUAL UNDERGRADUATE ENROLLMENT



Since its establishment in 2007, the University of Kentucky's Equine Science and Management bachelor's degree has quickly grown in enrollment - attracting students both domestic and international. Each year, the program averages nearly 300 students and educates hundreds more through its open courses and nine equine clubs and teams.

### OUR DEGREE PROGRAM STANDS OUT

- Comprehensive degree rather than a certificate or emphasis area
- Land-grant system maximizes world-class research and outreach
- Required internship exposes +50 students to KY industry annually
- Hands-on experiences train for industry involvement
- Many experiential opportunities in research and leadership
- Skill-building programs extend from freshmen to alumni
- UK Equine Career Fair open to college & K-12 students across KY
- "Essential Employability Qualities" Certified (the *only* equine program in the U.S. to receive this certification)

Dr. Nancy Cox, Dean & VP for Land-Grant Engagement nancy.cox@uky.edu (859) 257-4772

Dr. James MacLeod, Director of UK Ag Equine Programs jnmacleod@uky.edu (859) 218-1099

### CURRENT PROJECTS

### 2022 Kentucky Equine Survey

will deliver a comprehensive assessment of the Commonwealth's equine industry, with support from the Kentucky Agricultural Development Fund

### Supporting Industry Integrity

with new, multi-dimensional programs focusing on drug testing, medication control and track safety

### 2021 Rotavirus Outbreak

prompted UK scientists to quickly identify the new variant, develop a test and management practices and begin working towards a new vaccine

> **2000** ANNUAL EQUINE SUBMISSIONS TO UK VET DIAGNOSTIC LABORATORY the highest case load in North America



**4-H HURSE PRUGRAM** among the largest in the U.S.

+**IJOOOO** KENTUCKIANS REACHED ANNUALLY VIA EXTENSION'S EQUINE PROGRAMMING across all regions of Kentucky

### Did you know?

UK Cooperative Extension offers many programs for horse owners including workshops on forage practices, farm business management, equipment operations and more.

### CUTTING-EDGE Research programs

- Equine Biology & Health
- Horse & Human Athlete Safety
- Race Surface Conditions & Safety
- Infectious Diseases
- Immunology
- Genetics & Genomics
- Musculoskeletal Science
- Reproductive Health
- Nutrition
- Parasitology
- Pharmacology & Toxicology
- Economics
- Pastures & Forages

### SUPPORTING AND INVESTING IN KENTUCKY'S SIGNATURE INDUSTRY

The predictability of funding supports long-term visioning and strategic decision-making to support Kentucky's indispensable industry. There are promising opportunities for new investment, and we want to elevate our program to support future success.

### STUDENT WORKFORCE OPPORTUNITIES

- Bridging the gap across socioeconomic backgrounds
- Increasing access for underrepresented groups
- Providing hands-on learning in modern teaching facilities
- Facilitating meaningful internship and co-op experiences
- Business related MS and MBA programs

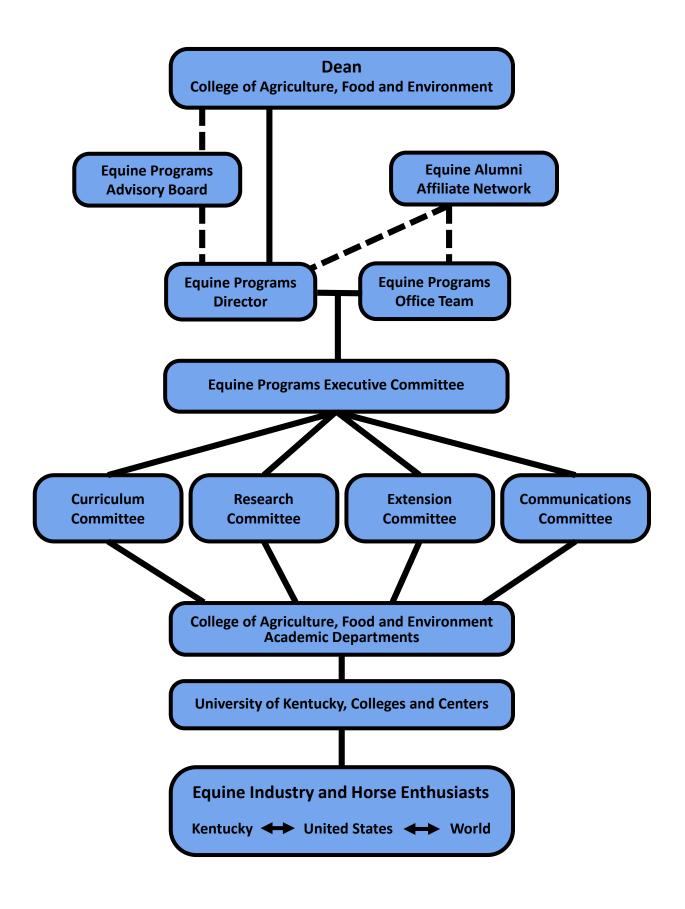
### **RESEARCH INVESTMENT & INDUSTRY ENGAGEMENT**

- Answering challenges to equine health and industry success
- Conducting meaningful research for owners big and small
- Positioning KY equine within emerging agtech initiatives
- Bringing new technologies to owners and professionals

### **OUTREACH INVESTMENT & SERVICE OPPORTUNITIES**

- Developing workshops and outreach efforts throughout KY
- Creating youth STEM camps centered on equine science
- Introducing equine agriculture to students in K-12 schools
- Increasing engagement for students from urban areas
- Expanding opportunities to equine enthusiasts of all ages
- Empowering policymakers with accurate data that informs decision-making in Frankfort and across the nation

### **UK Ag Equine Programs Organizational Diagram**



### Appendix Focus Area 8.b

### UK Ag Equine Programs Committees

	Equine Programs Executive Committee			
Number	Name	Title or Position	Basis for Executive Committee Participation	Departmental Affiliation
1	Dr. Nancy Cox	Dean	Dean; Founding Participant	CAFE Administration
2	Dr. James MacLeod	Faculty	Director	Veterinary Science
3	Holly Wiemers	Associate Director	Chair, Communications Committee	Equine Programs
4	Dr. Kristine Urschel	Faculty	Chair, Curriculum Committee; Director of Undergraduate Studies	Animal and Food Sciences
5	Dr. Ray Smith	Faculty	Chair, Extension Committee	Plant and Soil Sciences
6	Dr. Emma Adam	Faculty	Chair, Research Committee	Veterinary Science
7	Dr. Bob Coleman	Faculty	Co-Chair, Extension Committee; Former DUS; Founding Participant	Animal and Food Sciences
8	Dr. Jill Stowe	Faculty	Former Director	Agricultural Economics
9	Dr. Mick Peterson	Faculty	Former Director	Biosys. and Agric. Engin.
10	Dr. Laurie Lawrence	Faculty	Founding Participant	Animal and Food Sciences
11	Erin DesNoyers	Staff	Administrative Support	Equine Programs

	Research Committee			
Number	Name	Title or Position	Committee Position	Departmental Affiliation
1	Dr. Amanda Adams	Faculty	Member	Veterinary Science
2	Dr. Emma Adam	Faculty	Chair	Veterinary Science
3	Dr. Jamie MacLeod	Faculty	Member	Veterinary Science
4	Dr. Jill Stowe	Faculty	Member	Agricultural Economics
5	Dr. Laurie Lawrence	Faculty	Member	Animal and Food Sciences
6	Dr. Morgan Hayes	Faculty	Member	Animal and Food Sciences

	Curriculum Committee			
Number	Name	Title or Position	Committee Position	Departmental Affiliation
1	Dr. Bob Coleman	Faculty	Member	Animal and Food Sciences
2	Dr. Camie Heleski	Faculty	Member	Equine Programs
3	Dr. Jackie Wahrmund	Faculty	Member	Equine Programs
4	Dr. Jill Stowe	Faculty	Member	Agricultural Economics
5	Dr. Kristine Urschel	Faculty	Chair	Animal and Food Sciences
6	Dr. Martin Nielsen	Faculty	Member	Veterinary Science
7	Dr. Mary Rossano	Faculty	Member	Animal and Food Sciences
8	Kristen Wilson	Staff	Member	Equine Programs
9	Savannah Robin	Staff	Member	Equine Programs

	Extension Committee				
Number	Name	Title or Position	Committee Position	Departmental Affiliation	
1	Dr. Bob Coleman	Faculty	Member	Animal and Food Sciences	
2	Dr. Peter Timoney	Faculty	Member	Veterinary Science	
3	Dr. Ray Smith	Faculty	Chair	Plant and Soil Sciences	

	Communications Committee				
Number	Name	Title	Committee Position	Departmental Affiliation	
1	Danielle Jostes	Staff	Member	Philanthorpy	
2	Holly Wiemers	Staff	Chair	Equine Programs	

### UNIVERSITY OF KENTUCKY AG EQUINE PROGRAMS BOARD

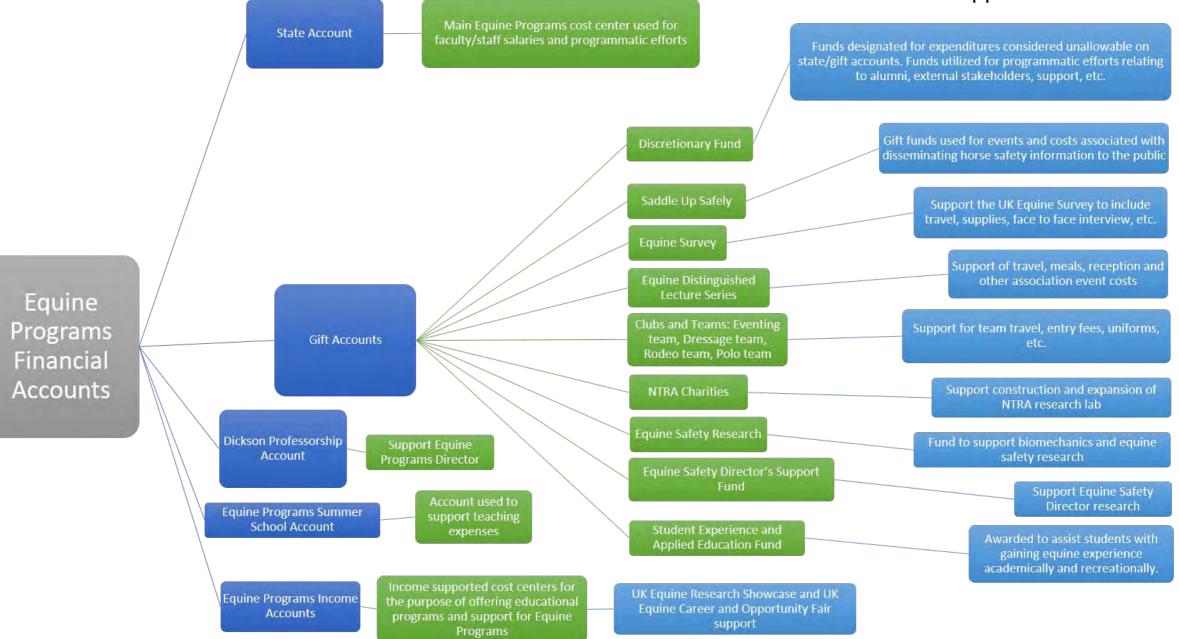
Start date for service	Committee	Name
2008	Nomination (Chair)	Dr. Stuart E. Brown II (Gluck Board)
		Keeneland Association
2014	Academic	Dr. Andrew Clark
2020	Philanthropy	Mr. Tom Hammond
2019	Academic (Chair)	Mr. Steve Koch
		The Stronach Group
2015	Academic	Mr. Jamie Link
2013	Philanthropy	Mr. Kenny McPeek
		McPeek Racing
2021	Academic	Ms. Autry Graham (EQAAN)
		EQAAN President
		Spendthrift Farm
2014	Nomination	Ms. Glenye Cain Oakford
		US Equestrian
2008	Nomination	Dr. Tom Riddle, Chair
		Rood and Riddle Equine Hospital
2020	Philanthropy (Chair)	Mr. Dan Rosenberg
2012	Nomination	Mr. Fred Sarver
		Cornerstone Farm
2012	Philanthropy	Ms. Reese Koffler-Stanfield
		Maplecrest Farm
2008	Nomination	Mr. David Switzer
2019	Academic	Mr. Alex Waldrop
		National Thoroughbred Racing Assocation

UNIVERSITY OFFICIALS	
	Dr. Nancy Cox
	Dean, College of Agriculture, Food and Environment
Dr. Jamie MacLeod	
	Director of UK Equine Programs
	John S. and Elizabeth A. Knight Chair, Professor

Dr. Carmen Agouridis
Associate Dean for Instruction
Dr. Jamie Matthews
Associate Dean for Research & Director of the KY
Dr. Laura Stephenson
Associate Dean and Extension Director

NEWLY APPOINTED BOARD MEMBERS 2022	
	Dr. Anastasia Curwood
	University of Kentucky
	Associate Professor of History
	Director, African American and Africana Studies
	Director, Commonwealth Institute for Black Studies
	Sergio De Sousa
	Hidden Brook Farm
	Greg Harbut
	Ed Brown Society
	Harbut Bloodstock
	Misdee Wrigley Miller
	Hillcroft Farm

### Appendix Focus Area 9.a



### College of Agriculture, Food and Environment

### \$21 FOR 2021 GRADS

### Dear Fellow Alums,

As the 2021 school year comes to a close and we reflect on the challenges faced, we are filled with pride for our graduating students who persevered and completed their degrees through these unprecedented times.

Thankfully, UK Ag Equine Programs and the UK Equine Alumni Affiliate Network are committed to ensuring our graduates stay connected and are able to celebrate their accomplishments for years to come. Our vision is both life-long learning and a life-long relationship.

We hope you will consider making a \$21 gift to honor a 2021 graduate! Not only will your gift honor a deserving student but will help foster all the student

networking opportunities, activities, and educational components that make our program so special.

Your gift helps us continue to offer UK Ag Equine Programs Students the unique opportunities we are so proud of. Thank you for your consideration.

Sincerely,

Autry Graham

President, UK Equine Alumni Affiliate Network



### **GIVE NOW**

University of Kentucky College of Agriculture, Food and Environment Office of Equine Philanthropy 108 Gluck Equine Research Center Lexington, KY 40526 Share this email:



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